	**		

### Sheesley, John

From:

Sheesley, John

Sent:

Friday, March 04, 2016 4:04 PM

To:

'daniel.cleveland@ky.gov'

Subject: Lee's Lane Landfill Site - MSD Cap

Daniel: I called your office just now but found you're out, so I'm sending a quick email to let you know that the EPA is postponing its decision as to whether MSD's expenses have hit the cap set forth in its settlement agreement for the Lee's Lane Landfill Site. After talking with the PRP group some more about this issue, we'd prefer not to upset the working relationship that the parties have established or the progress that's being made on site issues now. I expect we will take up the cap issue again in the future, and we'll seek your input again at that time. If you have any questions, feel free to give me a call. Thank you.

### John P. Sheesley

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

EPA takes a position. In the documents that EPA released in response to your FOIA request, you've probably seen that MSD believes it has met its cap.

EPA plans to consider whether MSD's expenditures satisfy the cap, so if the PRP Group or any of its members would like to submit comments or statements on the matter, please send them to me by Tuesday, March 8, 2016. If you'd like to schedule a call or meeting to discuss your submission, we'd be glad to discuss options for scheduling that too.

Thank you.

### John P. Sheesley

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61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

### Sheesley, John

From:

Sheesley, John

Sent:

Friday, March 04, 2016 4:05 PM

To:

'Friedman, Heidi'

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Yes, we've decided to postpone consideration of this question until a later time. We'll let you know when we take it up again.

#### John P. Sheesley

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

From: Friedman, Heidi [mailto:Heidi.Friedman@thompsonhine.com]

Sent: Wednesday, March 02, 2016 6:01 PM
To: Sheesley, John <Sheesley.John@epa.gov>
Subject: RE: Lee's Lane Landfill Site -- MSD Cap

Hi John-

any update on what we discussed?

thx H

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

Sent: Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; lkirsch@goodwinprocter.com

Cc: Seadler, Donna; Waters, Melissa

**Subject:** Lee's Lane Landfill Site -- MSD Cap

Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site. Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and maintenance work listed in that paragraph.

EPA has not yet taken a position on whether MSD's expenditures over the years have satisfied that cap, and I understand from speaking with you last year that the PRP Group may wish to express an opinion on that question before

```
> Sent: Monday, February 08, 2016 2:32 PM
> To: Friedman, Heidi;
> lkirsch@goodwinprocter.com<mailto:lkirsch@goodwinprocter.com>
> Cc: Seadler, Donna; Waters, Melissa
> Subject: Lee's Lane Landfill Site -- MSD Cap
>
> Larry and Heidi:
> As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County
Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site.
Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and
maintenance work listed in that paragraph.
>
> EPA has not yet taken a position on whether MSD's expenditures over the years have satisfied that cap, and I
understand from speaking with you last year that the PRP Group may wish to express an opinion on that question before
EPA takes a position. In the documents that EPA released in response to your FOIA request, you've probably seen that
MSD believes it has met its cap.
> EPA plans to consider whether MSD's expenditures satisfy the cap, so if the PRP Group or any of its members would
like to submit comments or statements on the matter, please send them to me by Tuesday, March 8, 2016. If you'd like
to schedule a call or meeting to discuss your submission, we'd be glad to discuss options for scheduling that too.
> Thank you.
> John P. Sheesley
> Office of Regional Counsel
> U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta
> Federal Center
> 61 Forsyth Street, SW
> Atlanta, GA 30303
> 404-562-8139 (P)
> 404-562-9486 (F)
> sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>
```

> >

### Sheesley, John

From: Sent: To: Subject:	Sheesley, John Thursday, February 18, 2016 3:59 PM Friedman, Heidi Re: Lee's Lane Landfill Site MSD Cap
	lice mail. Feel free to call me back at 770-503-5700 for the next hour or so. I expect to be on time, so if we can't connect today, I should be free most of the day tomorrow in the office at
From: Friedman, Heidi <hei Sent: Thursday, February 18 To: Sheesley, John Subject: Re: Lee's Lane Land</hei 	
Yes!!	
Sent from my iPhone	
> On Feb 18, 2016, at 12:19	PM, Sheesley, John <sheesley.john@epa.gov> wrote:</sheesley.john@epa.gov>
	l. I'm scheduled for calls for most of the afternoon, but I will give you a call when my last one d 4:30 Eastern time. Is your cell 216-970-5400? Thanks.
>	
> From: Friedman, Heidi <h &gt; Sent: Tuesday, February 1 &gt; To: Sheesley, John</h 	eidi.Friedman@thompsonhine.com> .6, 2016 4:09 PM
> Subject: Re: Lee's Lane La	ndfill Site MSD Cap
>	
> Ok. I will try	
> Sent from my iPhone	
> Sent from my ir none >	
	AM, Sheesley, John <sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>&gt; wrote:</sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>
>	
> Heidi: I'm tied up today b 8139.	ut expect to be available for most of the day tomorrow. Feel free to call anytime: 404-562-
>	
<ul><li>Sent: Friday, February 12,</li><li>To: Sheesley, John</li></ul>	
> <sheesley.john@epa.gov< p="">&gt; Subject: RE: Lee's Lane La</sheesley.john@epa.gov<>	<mailto:sheesley.john@epa.gov>&gt; ndfill Site MSD Cap</mailto:sheesley.john@epa.gov>
>	
•	ne time on Tuesday to discuss? I will be traveling but can call you.
> Let me know. Heidi	

> From: Sheesley, John [mailto:Sheesley.John@epa.gov]

EPA plans to consider whether MSD's expenditures satisfy the cap, so if the PRP Group or any of its members would like to submit comments or statements on the matter, please send them to me by Tuesday, March 8, 2016. If you'd like to schedule a call or meeting to discuss your submission, we'd be glad to discuss options for scheduling that too.

Thank you.

John P. Sheesley
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>

### Sheesley, John

From:

Sheesley, John

Sent:

Thursday, February 18, 2016 2:20 PM

To:

Friedman, Heidi

Subject:

Re: Lee's Lane Landfill Site -- MSD Cap

Heidi: Thanks for your call. I'm scheduled for calls for most of the afternoon, but I will give you a call when my last one is finished, hopefully around 4:30 Eastern time. Is your cell 216-970-5400? Thanks.

From: Friedman, Heidi < Heidi. Friedman@thompsonhine.com >

Sent: Tuesday, February 16, 2016 4:09 PM

To: Sheesley, John

Subject: Re: Lee's Lane Landfill Site -- MSD Cap

Ok. I will try

Sent from my iPhone

On Feb 16, 2016, at 11:40 AM, Sheesley, John <Sheesley.John@epa.gov<mailto:Sheesley.John@epa.gov>> wrote:

Heidi: I'm tied up today but expect to be available for most of the day tomorrow. Feel free to call anytime: 404-562-8139.

From: Friedman, Heidi [mailto:Heidi.Friedman@thompsonhine.com]

Sent: Friday, February 12, 2016 6:41 PM

To: Sheesley, John <Sheesley.John@epa.gov<mailto:Sheesley.John@epa.gov>>

Subject: RE: Lee's Lane Landfill Site -- MSD Cap

Hi John – do you have some time on Tuesday to discuss? I will be traveling but can call you.

Let me know. Heidi

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

Sent: Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; lkirsch@goodwinprocter.com<mailto:lkirsch@goodwinprocter.com>

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site. Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and maintenance work listed in that paragraph.

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sheesley.john@epa.gov

### Sheesley, John

From:

Sheesley, John

Sent:

Tuesday, February 16, 2016 1:40 PM

To:

'Friedman, Heidi'

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Heidi: I'm tied up today but expect to be available for most of the day tomorrow. Feel free to call anytime: 404-562-8139.

From: Friedman, Heidi [mailto:Heidi.Friedman@thompsonhine.com]

Sent: Friday, February 12, 2016 6:41 PM
To: Sheesley, John <Sheesley.John@epa.gov>
Subject: RE: Lee's Lane Landfill Site -- MSD Cap

Hi John – do you have some time on Tuesday to discuss? I will be traveling but can call you.

Let me know. Heidi

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

Sent: Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; <a href="mailto:lkirsch@goodwinprocter.com">lkirsch@goodwinprocter.com</a>

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site. Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and maintenance work listed in that paragraph.

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Thank you.

#### John P. Sheesley

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)

### Sheesley, John

From:

Sheesley, John

Sent:

Monday, February 08, 2016 2:32 PM

To:

'Friedman, Heidi'; 'lkirsch@goodwinprocter.com'

Cc: Subject: Seadler, Donna; Waters, Melissa Lee's Lane Landfill Site -- MSD Cap

#### Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site. Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and maintenance work listed in that paragraph.

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Thank you.

#### John P. Sheesley

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404-562-9486 (F)
sheesley.john@epa.gov

Releaseable

Observation	Report	No:	Date	of	Observation	

Site Map

\_

Date: 17/72/110

0bs	ervations:	<u>Yes</u> *	<u>No</u>	Not Observed	Comment No.
1.	Subsidence of slope, sloughing or caving	_	X		
2.	Erosion of rip-rap or underlying material	_	$\times$	-	
3.	Abnormally damp areas, wet ground vegetation	_	X	_	
4.	Soft spots in surface	_	$\overline{\lambda}$		
5.	Seepage, water flow, piping, or sand boils	****	X	_	
6.	Undermining of rip-rap		$\succeq$		
7.	Vegetative growth on rip-rap slope		$\succeq$	_	
8.	Buildup of trash and debris on rip-rap		X		
9.	Exposed trash or filter fabric		<u> </u>		-
10.	Tilting trees		×	_	_
11.	Tension cracks		$\stackrel{\frown}{\times}$		
12.	Survey monuments missing or damaged		×		
Sect	ion F: Surface Waste Cleanup/C	Cover			
Obse	ervations:	<u>Yes</u> *	<u>No</u>	Not Observed	Comment No.
1.	Swales greater than 1 foot wide and 2 inches deep	$\overline{\lambda}$	*******		-
2.	Cracks greater than 1 inch wide and 6 inches deep	<u>Y</u>	_		
3.	Areas of erosional damage to grass	X		<del></del>	
4.	Inadequate grass cover (area > 36 ft <sup>2</sup>	7			
5.	Ponded water (area larger than 2 feet in diameter and 3 inches deep)		X	_	
6.	Erosion or ponded water greater than 12 inches deep (requires immediate repair)	_	X	_	

<sup>\*</sup>If yes, assign a comment no. in the last column and follow instructions on comment sheet.

REPORT OF FIELD OBSERVATION LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

5.	Service box lids not in place		X	******	
6.	Alarm and blower controls not functioning		$\stackrel{\times}{\bot}$	_	-
7.	Settlement or tilting of well/moisture trap concrete collars	X	-	_	
8.	Well/moisture trap covers missing or damaged	$\times$			
9.	Excessive vegetation covering wells/moisture traps		X		
10.	Adjustment valve inaccessible		X	_	
11.	Well/moisture trap caps, plugs, and piping missing	$\frac{1}{2}$			
12.	Blower house and well/moisture trap signs missing or damaged	×			
	tion D: Groundwater & Gas Moni	Yes*	<u>No</u>	Not Observed	Comment No.
1.	Wells unlocked		X		
2.	Guard posts and rails missing or damaged		×		
3.	Protective casing missing, damaged or rusted		X		
4.	<del>-</del>		,		
5.	Concrete pads damaged or cracked	-	$\times$		
6.	Possible surface water infiltration into wells	-	<u>×</u>		
	Possible surface water		<u>×</u>	- - -	
7.	Possible surface water infiltration into wells Excessive vegetation or debris	- - -	×	- - -	

## REPORT OF FIELD OBSERVATION LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

	servation Report No: FY10-20			Observation	12/22/15
	11	Time D	eparte	ed Site: 13	8 pm_
Fi	eld Personnel: Heather Doc	$\mathcal{L}$		***************************************	
		<del></del>			
Se	ction A: General Site Condition	ns			
				Not	Comment
Ob	servations:	<u>Yes</u> *	No	Observed	No.
1.	Major settlement of topsoil or erosion exposing waste/fill		X	_	
2.	material Evidence of leachate seepage		X		
3.	Distressed Vegetation		$\overline{V}$		
4.	Pot holes, erosion of access	$\overline{\mathcal{L}}$	/		A-U
	road	_		_	/
Sec	tion B: Institutional Controls	3			
				Not	Comment
Obs	servations:	<u>Yes</u> *	No	Observed	No.
1.	Structural problem with Lee's		X		
2.	Lane gate or barricade Structural problem with Putman	_	·—	_	
	Ave. barricade	_	×	<del></del>	
3.	Lee's Lane gate unlocked	_	X	_	<del></del>
4.	Broken or missing lock	_	X	_	***************************************
Sec	tion C: Gas Collection System				
				Not	Comment
Obs	ervations:	<u>Yes</u> *	No	Observed	No.
1.	Vandalism to blower house wells, or moisture traps	_	X		
2.	Structural damage to blower house		X	_	
3.	Blower not operating or visible		X		
4.	damage Blower house not secure and		X		
- •	unclean	_	<u>^</u>	-	
Obs	ervations:	<u>Yes</u> *	No	Not Observed	Comment No.

Observation Report No: FY16-2Q Date of Observation: 12/22/2015

Instruction: If any item is checked yes, provide details of the problem and maintenance recommendations below and indicate the location of deficiency on the site map provided.

Comment No.	Comment	Corrective Action Performed
A-4	Potholes in access road	None – Consent Order Capped Item (e)
C-7	Collar missing on multiple wells/moisture traps	MSD to coordinate with EPA / KDEP to determine next steps
C-8	Covers missing from multiple wells/moisture traps	See C-7
C-11	W26 missing cap	See C-7
C-12	Signs missing from multiple wells/moisture traps	See C-7
F-1	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-2	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-3	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-4	Damage from vehicular trespassing	None – Consent Order Capped Item (k)



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

December 23, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency Region 4 61 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Report of Field Observation – FY16, Second Quarter (FY16-2Q)

Lees Lane Superfund Site, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan for Post Removal Site Control at the Lee's Lane Landfill Site, attached for your information and files is one copy of the Report of Field Observation (Appendix J).

Please advise if you have any questions concerning the following information.

Sincerely,

Heather Dodds Engineer II

HND/hnd

cc:

Sheri Adkins, Kentucky Division of Waste Management Daniel Phelps, Kentucky Division of Waste Management

Anthony Marconi, MSD

Jill Allen, MSD

leather D

# TABLE 3 TO-15 DATA SUMMARY FOR GAS WELL MONITORING SAMPLING DATE: 27 SEPTEMBER 2015

	2			Well	Samples	(A)				10 To
	G1	G2	G3	G4	G5-L	G5-R	GMW-1	GMW-2	GMW-3	BLANK #1
Canister ID	CC8283	C1416	C000016	C000027	C1433	CC8802	C1457	CC8796	C1421	C1422
Dilution Factor	2.085	2.232	2.106	2.198	2.063	2.036	2.141	2.083	2.088	1
Controller	E-021	E-047	E-033	E-003	E-031	E-040	E-020	E034	E-017	NA
Sampling Date	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015	9/27/2015
Compound (ppbV)									<b>.</b>	
Benzene	0.107	0.137	ND	0.0821	0.0958	0.0934	0.826	0.0847	ND	ND
Methylene chloride	ND	ND	0.159	ND	ND	ND	0.369	ND	ND	ND
Toluene	0.510	0.125	0.118	1.00	0.101	0.953	0.281	ND	ND	ND
Vinyl chloride	0.167	ND	ND	0.0971	ND	ND	ND	ND	ND	ND
Xylene (Total)	ND									
Methane (ppmV)	8.03	8.74	8.13	8.32	7.79	7.63	8.12	1.59	8.36	4.24

ND = Non Detect < MDL and < Limit of Quantitation

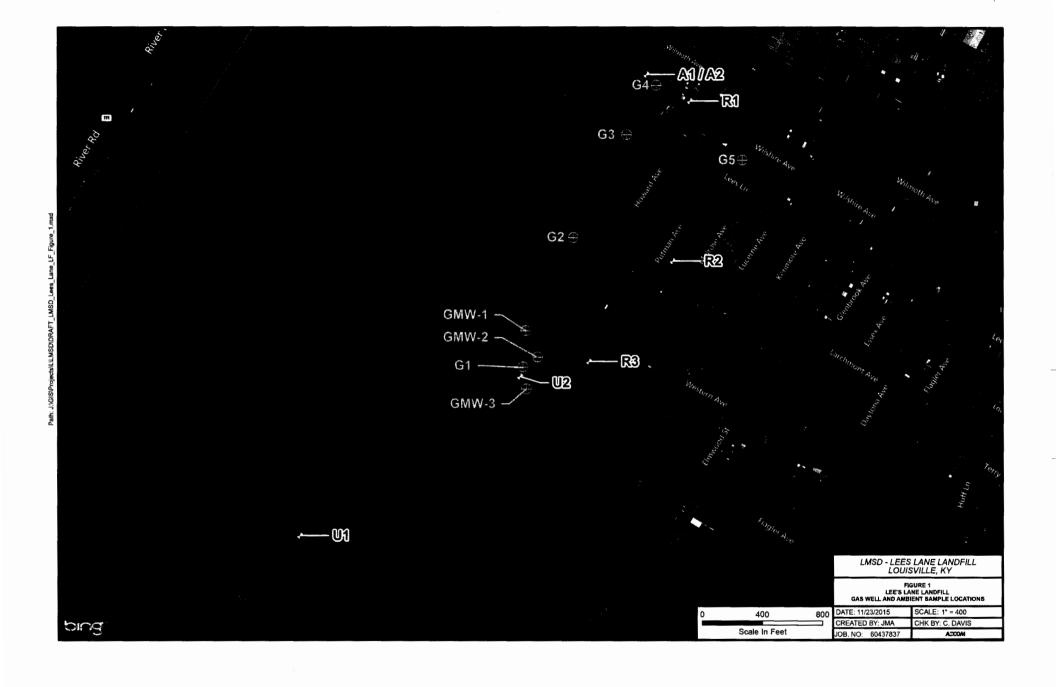
### TABLE 2 LOCAL METEOROLOGICAL DATA AMBIENT AIR SAMPLES SAMPLING DATE: 27 SEPTEMBER 2015

Time	Barometric Pressure (in Hg)	Temperature (°F)	Dewpoint (°F)	Wind Direction (from)	Wind Speed (mph)	Observation
7:56 AM	30.12 in	64.9°F	60.1°F	ESE	5.8 mph	Overcast
8:56 AM	30.13 in	66°F	60.1°F	ESE	3.5 mph	Mostly Cloudy
9:56 AM	30.13 in	66.9°F	60.1°F	ESE	5.8 mph	Overcast
10:56 AM	30.14 in	69.1°F	61°F	ESE	6.9 mph	Mostly Cloudy
11:56 AM	30.14 in	72°F	61°F	SSE	5.8 mph	Overcast
12:56 PM	30.13 in	75.9°F	62.1°F	South	6.9 mph	Overcast
1:56 PM	30.1 in	77°F	63°F	SSE	10.4 mph	Overcast
2:56 PM	30.08 in	78.1°F	63°F	South	6.9 mph	Overcast
3:56 PM	30.05 in	79°F	62.1°F	Variable	6.9 mph	Overcast
4:56 PM	30.04 in	79°F	62.1°F	SSE	10.4 mph	Mostly Cloudy
5:56 PM	30.04 in	79°F	61°F	SSE	9.2 mph	Mostly Cloudy

# TABLE 1 TO-15 DATA SUMMARY FOR AMBIENT AIR SAMPLES AT THE LEE'S LANE LANDFILL SAMPLING DATE: 27 SEPTEMBER 2015

Ambient Air Samples							
Sample ID	A1	A2	U1	U2	R1	R2	R3
Canister ID	C1191	C1465	C1469	C1582	C1410	CC8795	C1436
Dilution Factor	2.444	2.606	2.350	2.716	2.250	2.654	2.324
Location	ONSITE	ONSITE DUP.	LG&E	LEVY	4423 WILSHIRE	PUTMAN LANE	PUTMAN END
Controller ID	SB-03544	SB-01604	SB-01878	SB-01542	SB-03727	SB-01602	SB-03422
Compound (ppbV)							
Benzene	0.103	0.118	ND	ND	0.0963	0.215	ND
Methylene chloride	0.174	1.10	0.147	0.118	0.115	0.269	ND
Toluene	0.225	0.669	0.162	0.235	0.217	0.344	0.101
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	ND	ND	ND	ND	ND	0.456	ND
Methane (ppmV)	1.60	1.86	2.00	1.55	1.73	1.83	1.64

ND = Non Detect < MDL and < Limit of Quantitation



Ms. Heather Dodds November 24, 2015 Page 2 of 2

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. Prior to the field sample collection, all monitoring wells were screened with a GEM-2000 analyzer to test for the presence of methane in the well. Methane was not detected in any of the wells or the vicinity of the wells above background by the instrumentation.

URS, a wholly owned subsidiary of AECOM, appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely

Chris Davis Project Manager

Robert F. Jongleux Project Technical Lead

11a-

Enclosure

Project Files/Task 58

AECOM 500 West Jefferson Street Suite 1600 Louisville, Kentucky 40202

www.aecom.com

502 569 2301 tel 502 569 2304 fax

60437837

November 24, 2015

Ms. Heather Dodds Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville, KY 40203

Dear Heather,

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on September 27, 2015 (Sampling Event 58). Ambient air samples at seven locations, along with gas well samples (G1, G2, G3, G4, G5R, G5L, GMW-1, GMW-2, GMW-3) and a Field Blank were collected.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary of the ambient samples with the primary analytes required for submission to EPA. Benzene, toluene and methylene chloride were detected in small quantities in most ambient samples. Total Xylene was also detected at ambient sample location R2. Methane concentrations were consistent with or lower than historical concentrations.

The sampling locations were chosen based on a combination of prevailing on-site meteorology and accessible sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were mild throughout the sampling day; warm (64-790 F), with light, southeasterly winds. The information displayed in Table 2 was obtained from the Louisville International Airport (Standiford Field) National Weather Service Station. The ambient air samples were collected in Summa canisters with stainless steel sampling canes positioned 3-5 feet above ground level, integrated over an approximate 7 to 8-hour collection period.

The methane analysis was performed by GC/FID using a separate analytical system from the TO-15 analysis employed at Enthalpy Analytical, Inc. in Durham, NC. The TO-15 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total non-methane hydrocarbons prior to field deployment. All of the samples were successfully collected and analyzed for methane and the TO-15 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal AECOM and project-required specifications for all other analyses.

The reliability of this data set from the September 2015 sampling event can be characterized as good, based on the repeatability (analytical precision), surrogate spike recoveries and analyte concentrations encountered in the field blank. Methane was detected at higher than expected level in the field blank canister. No other analytes were reported in the field blank canister. Methane values are not blank corrected.

Ms. Donna Seadler November 24, 2015

Page 2

Please advise if you have any questions concerning the following information.

Sincerely,

Heather Dodds Engineer II

HND/hnd

cc: Sheri Adkins, Kentucky Division of Waste Management

Daniel Phelps, Kentucky Division of Waste Management

Anthony Marconi, MSD

Jill Allen, MSD



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

November 24, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency Region 4 61 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Result of Air Quality Monitoring – FY16, First Quarter (FY16-1Q)

Lees Lane Superfund Site, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan for Post Removal Site Control at the Lee's Lane Landfill Site Section 4.2, Air Quality Monitoring, attached for your information and files is one copy each of the following items, prepared by URS Corporation, 1600 Perimeter Park Drive, Morrisville, North Carolina, 27560 and received by MSD on November 24, 2015.

- 1. URS Corporation letter dated November 24, 2015, 2 pages.
- 2. Figure 1, Lees Lane Landfill, Sampling Locations, 1 page.
- 3. Table 1, TO-15 Data Summary for Ambient Air Samples at the Lees Lane Landfill, Sampling Date September 27, 2015, 1 page.
- 4. Table 2, Local Meteorological Data, Sampling Date September 27, 2015, 1 page.
- 5. Table 3, TO-15 Summary Data for Gas Monitoring Well Samples at the Lees Lane Landfill, Sampling Date September 27, 2015, 1 page.



Observation Report No:	Date of Observation	,
	Site Map	

Observer's Signature: West Die Date: 6/20/13

Obs 1. 2. 3. 4.	Subsidence of slope, sloughing or caving Erosion of rip-rap or underlying material Abnormally damp areas, wet ground vegetation Soft spots in surface Seepage, water flow, piping, or	<u>Yes</u> *	No X X X	Not Observed —	No.
6.	sand boils Undermining of rip-rap	_	<u>X</u>		
7. 8.	Vegetative growth on rip-rap slope Buildup of trash and debris on rip-rap	<u>×</u>	<u> </u>	_ _ _	
9. 10.	Exposed trash or filter fabric Tilting trees		X	_	
11.	Tension cracks		<u>X</u> X_	_	·
12.	Survey monuments missing or damaged	_	<u>X</u>	_	
Sect	tion F: Surface Waste Cleanup/	Cover			
Obse	ervations:	<u>Yes</u> *	<u>No</u>	Not Observed	No.
1. 2.	Swales greater than 1 foot wide and 2 inches deep Cracks greater than 1 inch wide	X	_		
2.	and 6 inches deep	X	_		
3.	Areas of erosional damage to grass	$\overline{\lambda}$	_		<del></del>
4.	Inadequate grass cover (area > 36 ft <sup>2</sup>	X	_	_	
5.	Ponded water (area larger than 2 feet in diameter and 3 inches deep)	. <u>X</u>	_	_	
6.	Erosion or ponded water greater than 12 inches deep (requires		$\times$		sedemonari-constrain

<sup>\*</sup>If yes, assign a comment no. in the last column and follow instructions on comment sheet.

immediate repair)

REPORT OF FIELD OBSERVATION
LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

5.	Service box lids not in place		$\frac{\times}{\times}$		
6.	Alarm and blower controls not		×		
	functioning		<u></u>	<del></del>	
7.	Settlement or tilting of				
	well/moisture trap concrete	X	_		
	collars				
8.	Well/moisture trap covers	×			
_	missing or damaged	*******		*******	
9.	Excessive vegetation covering wells/moisture traps		×	_	
10.	Adjustment valve inaccessible	_		<del></del>	
	•		X		
11.	Well/moisture trap caps, plugs,	×			
12.	and piping missing Blower house and well/moisture	×	_		
12.	trap signs missing or damaged	<u>~</u>	_		
	crap signs missing or damaged				
Obs	ervations:	Yes*	<u>No</u>	<u>Not</u> Observed	Comment No.
1.	Wells unlocked		<u>κ</u>		
2.	Guard posts and rails missing or				
	damaged		$\overline{X}$	_	***************************************
3.	Protective casing missing,		X		
	damaged or rusted	-	<u></u>		
4.	Concrete pads damaged or cracked	_	$\times$		
5.	Possible surface water .				
	infiltration into wells		<u>X</u>	-	
6.	Excessive vegetation or debris		×		
	around wells				
7.	Well cap missing or damaged		X		
8.	Tubing, fittings, and valves				
	missing or damaged (gas wells only)		<u>~</u>		

# REPORT OF FIELD OBSERVATION LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

0b	servation Report No: F15-4Q	Da	te of	Observation	6126/15
Ti	me Arrived Onsite: <u>9:25 Am</u>	Time D	eparte	ed Site: 10:	10 Am
Fi	eld Personnel: <u>Heather Dodd</u>	5			
Se	ction A: General Site Condition	ns		,	
				Not	Comment
0b	servations:	<u>Yes</u> *	<u>No</u>	Observed	No.
1.	Major settlement of topsoil or erosion exposing waste/fill	_	X		
2.	material Evidence of leachate seepage		Χ		
3.	Distressed Vegetation		<u> </u>		
4.	Pot holes, erosion of access	$\frac{1}{\sqrt{2}}$	7	. —	
- •	road	X	_		
Sec	ction B: Institutional Controls	5			
				Not	Comment
Obs	servations:	<u>Yes</u> *	<u>No</u>	Observed	No.
l.	Structural problem with Lee's		X		
2.	Lane gate or barricade Structural problem with Putman			_	
••	Ave. barricade		X	_	
3.	Lee's Lane gate unlocked	_	<u>X</u>	_	
ł.	Broken or missing lock		$\star$		
-					
Sec	tion C: Gas Collection System				
Ohe	ervations:	Yes*	No	Not Observed	Comment No.
		100			
•	Vandalism to blower house wells, or moisture traps		$\overline{X}$		
2.	Structural damage to blower		X		
١.	house Blower not operating or visible	_		<del></del>	
•	damage	_	$\overline{\times}$		
•	Blower house not secure and unclean		$\overline{\chi}$	-	
		V+	V.c.	Not	Comment
Obs	ervations:	<u>Yes</u> *	No	Observed	No.

### Observation Report No: FY15-4Q

Date of Observation: 06/26/2015

Instruction: If any item is checked yes, provide details of the problem and maintenance recommendations below and indicate the location of deficiency on the site map provided.

Comment No.	Comment	Corrective Action Performed
A-4	Potholes in access road	None - Consent Order
		Capped Item (e)
C-7	Collar missing on multiple wells/moisture traps	MSD to coordinate with
		EPA / KDEP to
		determine next steps
C-8	Covers missing from multiple wells/moisture traps	See C-7
C-11	W26 missing cap	See C-7
C-12	Signs missing from multiple wells/moisture traps	See C-7
E-7	Vegetative growth on riprap slope	Created work order
		2379477 to clear
		vegetation
F-1	Damage from vehicular trespassing	None – Consent Order
		Capped Item (k)
F-2	Damage from vehicular trespassing	None – Consent Order
		Capped Item (k)
F-3	Damage from vehicular trespassing	None – Consent Order
		Capped Item (k)
F-4	Damage from vehicular trespassing	None - Consent Order
		Capped Item (k)
F-5	Damage from vehicular trespassing	None – Consent Order
		Capped Item (k)



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

June 29, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency Region 4 61 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Report of Field Observation – FY15, Fourth Quarter (FY15-4Q)

Lees Lane Superfund Site, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan for Post Removal Site Control at the Lee's Lane Landfill Site, attached for your information and files is one copy of the Report of Field Observation (Appendix J).

Please advise if you have any questions concerning the following information.

Sincerely,

Heather Dodds Engineer II

HND/hnd

cc:

Sheri Adkins, Kentucky Division of Waste Management Daniel Phelps, Kentucky Division of Waste Management Anthony Marconi, MSD Jill Allen, MSD Ms. Donna Seadler June 15, 2015

Page 2

Please advise if you have any questions concerning the following information.

Sincerely,

Heather Dodds Engineer II

HND/hnd

cc: Sheri Adkins, Kentucky Division of Waste Management

Daniel Phelps, Kentucky Division of Waste Management

Anthony Marconi, MSD

Jill Allen, MSD



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

June 15, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency Region 4 61 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Result of Air Quality Monitoring - FY14, Fourth Quarter (FY15-4Q)

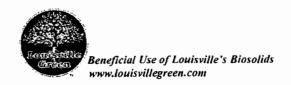
Lees Lane Superfund Site, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan for Post Removal Site Control at the Lee's Lane Landfill Site Section 4.2, Air Quality Monitoring, attached for your information and files is one copy each of the following items, prepared by URS Corporation, 1600 Perimeter Park Drive, Morrisville, North Carolina, 27560 and received by MSD on June 15, 2015.

- 1. URS Corporation letters dated June 5, 2015, 2 pages.
- 2. Figure 1, Lees Lane Landfill, Sampling Locations, 1 page.
- 3. Table 1, TO-15 Data Summary for Ambient Air Samples at the Lees Lane Landfill, Sampling Date April 23, 2015, 1 page.
- 4. Table 2, Local Meteorological Data, Sampling Date April 23, 2015, 1 page.
- 5. Table 3, TO-15 Summary Data for Gas Monitoring Well Samples at the Lees Lane Landfill, Sampling Date [April 23, 2015, 1 page.





# TABLE 3 TO-15 DATA SUMMARY FOR GAS MONITORING SAMPLING DATE: 23 APRIL 2015

	Well Samples									
	G1	G2	G3	G4	G5-L	G5-R	GMW-1	GMW-2	GMW-3	BLANK #1
Canister ID	1472	1582	1470	000025	C8283	000009	C8246	8200	000007	1412
Controller	SGS-011	SGS-002	SGS-501	SGS-009	SGS-012	SGS-007	SGS-008	SGS-001	SGS-502	NA
Sampling Date	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015	4/23/2015
Compound (ppbV)										
Benzene	0.0846	0.0958	ND	ND	ND	0.0747	0.078	0.10	0.16	ND
Methylene chloride	0.146	ND	NĐ	ND	ND	ND	0.0845	0.147	0.249	ND
Toluene	0.594	0.576	0.203	1.14	0.114	1.27	ND	0.164	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	ND	ND	0.749	ND						
Methane (ppmV)	0.781	152	0.781	0.787	0.784	0.777	0.777	1.56	20,411	0.387

ND = Non Detect < MDL and < Limit of Quantitation



TABLE 2
LOCAL METEOROLOGICAL DATA
AMBIENT AIR SAMPLES
SAMPLING DATE: 23 APRIL 2015

Time	Barometric Pressure (in Hg)	Temperature (°F)	Dewpoint (°F)	Wind Direction (from)	Wind Speed (mph)	Observation
7:56 AM	30.05 in	43.0 °F	28.9 °F	West	8.1 mph	Clear
8:56 AM	30.06 in	46.9 °F	27.0 °F	WNW	9.2 mph	Clear
9:56 AM	30.07 in	50.0 °F	23.0 °F	WNW	10.4 mph	Clear
10:56 AM	30.08 in	54.0 °F	15.1 °F	NW	16.1 mph	Clear
11:56 AM	30.08 in	55.9 °F	14.0 °F	NW	13.8 mph	Clear
12:56 PM	30.06 in	57.9 °F	19.0 °F	West	13.8 mph	Clear
1:56 PM	30.05 in	60.1 °F	19.0 °F	West	12.7 mph	Clear
2:56 PM	30.04 in	62.1 °F	18.0 °F	NNW	13.8 mph	Clear
3:56 PM	30.02 in	62.1 °F	18.0 °F	WNW	13.8 mph	Clear
4:56 PM	30.01 in	62.1 °F	18.0 °F	WNW	19.6 mph	Clear
5:56 PM	30.03 in	62.1 °F	18.0 °F	WNW	17.3 mph	Clear
6:56 PM	30.04 in	60.1 °F	16.0 °F	WNW	16.1 mph	Clear

Source: National Weather Service, Louisville, Ky. (KSDF)



TABLE 1

#### TO-15 DATA SUMMARY FOR AMBIENT AIR SAMPLES AT THE LEE'S LANE LANDFILL SAMPLING DATE: 23 APRIL 2015

	Ambient Air Samples									
Sample ID	A1	A2	U1	U1-B (Duplicate)	U2	R1	R2	R2-B (Duplicate)	R3	R3-B (Duplicate)
Canister ID	1475	1433	1465	000027	1446	1459	1469	1436	1410	1445
Location	ONSITE	onsite Dup.	LG&E	LG&E	LEVY	4423 WILSHIRE	PUTMAN LANE	PUTMAN LANE	PUTNAM END	PUTMAN END
Controller ID	SB-03424	SB-01803	SB-0125	SB-01604	SB-01538	SB-03541	SB-01541	SB-01603	SB-01804	SB-01597
Compound (ppbV)										
Benzene	ND	ND	0.186	0.0939	0.109	0.0898	0.0877	0.0828	0.0855	0.364
Methylene chloride	0.135	0.152	0.476	0.2	0.158	0.125	0.172	0.128	0.193	0.117
Toluene	ND	ND	0.981	0.114	2.63	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)	ND	ND	0.3086	ND	ND	ND	ND	ND	ND	ND
Methane (ppmV)	1.68	1.44	2.25	1.51	1.68	1.62	1.75	1.48	1.62	1.43

ND = Non Detect < MDL and < Limit of Quantitation

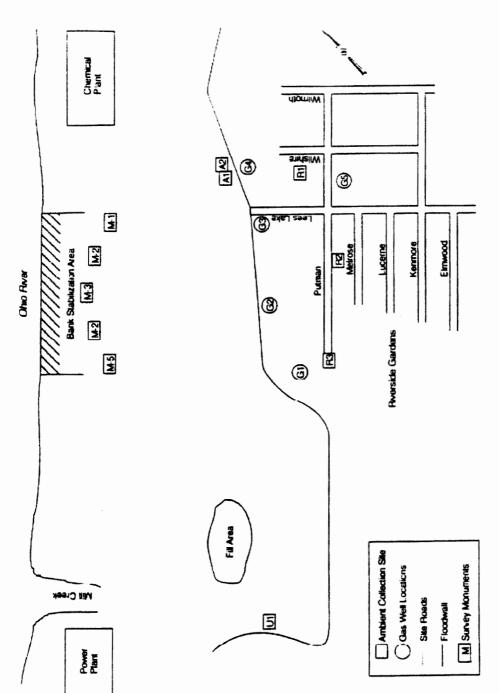


Figure 1. Lees Lane Landfill Sampling Locations



Ms. Heather Dodds Page 2 June 5, 2015

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. Prior to the field sample collection, all monitoring wells were screened with a GEM-2000 analyzer to test for the presence of methane in the well. Methane was not detected in any of the wells or the vicinity of the wells above background by the instrumentation with the exception of well GMW-3. Methane concentrations of approximately 2.6% were measured at gas well GMW-3 just prior to sampling

AECOM appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

**Enclosure** 

cc: C

Chris Davis, URS/LOU Project File/Task 57



60405598

June 5, 2015

Ms. Heather Dodds Louisville Metropolitan Sewer District 3050 Commerce Center Place Louisville, KY 40211

#### Dear Heather:

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on April 23, 2015 (Sampling Event 57). Seven ambient samples, along with (G1, G2, G3, G4, G5R, G5L, GMW-1, GMW-2, GMW-3) well samples and a Field Blank were taken. For this sampling event, duplicates were collected at ambient sample locations U1, R2 and R3 for additional quality control purposes.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary of the ambient samples with the primary analytes required for submission to EPA. Benzene and Methylene Chloride were detected in small quantities in select ambient samples. Methane concentrations were consistent with historical concentrations.

The sampling locations were chosen based on a combination of prevailing on-site meteorology and accessible sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were moderate throughout the sampling day; cool (45-62°F), with light, westerly winds. The information displayed in Table 2 was obtained from the Louisville International Airport (Standiford Field) National Weather Service Station. The ambient air samples were collected in Summa carristers with stainless steel sampling canes positioned 3-5 feet above ground level, integrated over an approximate 7 to 8-hour collection period.

The methane analysis was performed by GC/FID using a separate analytical system from the TO-15 analysis employed at Enthalpy Analytical, Inc. in Durham, NC. The TO-15 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total non-methane hydrocarbons prior to field deployment. All of the samples were successfully collected and analyzed for methane and the TO-15 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal URS and project-required specifications for all other analyses.

The reliability of this data set from the April 2015 sampling event can be characterized as good, based on the repeatability (analytical precision), surrogate spike recoveries and analyte concentrations encountered in the field blank. The April 2015 field blank canister did report small concentrations for methane and propylene that were within acceptability limits.

AECOM 1600 Perimeter Park Drive Morrisville, North Carolina 27560 Telephone: 919.461.1100 Fax: 919.461.1415



April 30, 2015

Louisville/Jefferson County Metropolitan Sewer District Infrastructure and Flood Protection 3050 Commerce Center Place Louisville, Kentucky 40211

Attention: Heather Dodds

RE: Surveying of the Lee's Lane Landfill site

Dear Heather:

Listed below are the elevations for the monitoring wells at the Lee's Lane Landfill, per your request.

- Bench Mark TT A 10 Elevation = 457.280
- Site TBM Chiseled 1" by 1" Square Cut in the South rim of manhole on 5' by 5' by 3' high concrete box which is located 12' East of floodwall levee centerline and 27' South of Lee's Lane (pavement extended).
- Elevation = 463.368

	<u>2015</u>	<u>2014</u>	<u>2013</u>
Monument #1 Monument #2 Monument #3 Monument #4 Monument #5	Elevation = 448.680 Elevation = 447.224 Elevation = 444.906 Elevation = 444.951 Elevation = 445.326	Elevation = 448.680 Elevation = 447.232 Elevation = 444.917 Elevation = 444.958 Elevation = 445.356	Elevation = 448.694 Elevation = 447.251 Elevation = 444.935 Elevation = 444.973 Elevation = 445.335

If you have any questions please feel free to call at any time.

Sincerely,

HDR Engineering, Inc.

C. Bruce Snook, PLS 2747

CBS/mpd

hdrinc.com

L'HDR Contracts 90000 Series\CON0097890-LMSD Lees Ln 2015 Survey\03.00\_Deliverables\Lees Lane Landfill site 4-27-15.doc

```
97890-NOTES.TXT
                                           -6.0880
-5.1450 -5.1450
-4.2020 449.5853
   TP
                                                                       449.576
3781
             189
                        3969
                    8.3700
   HI
                    7.3810 7.3797
6.3880 456.9650
4167
 198
                                           -4.1350
-2.9350 -2.9327
-1.7280 454.0323 454.022
   TP
                        4408
             241
4167
                   10.6350
10.0000
   ΗI
                                  9.9987
                    9.3610 464.0310
4536
 127
                                           -1.0250
   BM SQ CUT
                                           -0.6510 -0.6520
-0.2800 463.3790
                                                                       463.368 S.SIDE 5X5 @FLDWALL
4536
               75
                        4610-
```

```
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                 3.5820 451.8003
1374
 198
   MON-M3
                                    -7.8420
                                    -6.8890
                                               -6.8910
                                    -5.9420 444.9093
                                                          444.906 47' NW OF PVMT
1374
           190
                    1564
                 5.8250
   HI
                 4.8880
                           4.8873
                 3.9490 449.7967
1751
 188
                                    -5.9150
   MON-M4
                                    -4.8420
                                              -4.8407
                                    -3.7650 444.9560
                                                          444.951 19.5' NW PVMT
1751
                    1966
           215
                 7.6420
   HI
                6.5480 6.5500
5.4600 451.5060
2185
 218
   MON-M5
                                    -7.2350
                                    -6.1720 -6.1740
-5.1150 445.3320
                                                          445.326 40.5' NW PVMT
2185
           212
                    2397
                 7.1620
   HI
                           6.1020
                 6.1020
                 5.0420 451.4340
                    2609
 212
   TP
                                    -6.8220
                                    -5.7600
                                             -5,7607
                                    -4.7000 445.6733
                                                          445.667
2609
           212
                    2821
                 7.2410
   ΗI
                6.2610 6.2613
5.2820 451.9347
3017
 196
   TP
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                                             -4.6920
                                    -4.6920
                                                          447.235
                                    -3.6950 447.2427
3017
           199
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                 6.9930
   HI
                           6.0390
                 6.0410
                 5.0830 453.2817
                    3407
 191
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-5.2950
   TP
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3407
           182
                    3589
                7.7020
6.7420
   HI
                           6.7437
                5.7870 454.7303
3781
192
```

1

Page 2

#### 97890-NOTES.TXT

PROJECT LEES LANE LANDFILL PROJECT NO.CON0097890

LEVEL CIRCUIT MON CHECK DATE 4/27/14

INSTRUMENT WILD NA2 RODS WILD STAFF

WEATHER SUNNY TEMP. 60 DEGREES

| STATION | + | MEAN/HI | - | MEAN/EL | BM/ADJ | REMARKS DIST | - DIST | T-DIST | 463.3680 ON RIM MH TBM CH SQ ΗI 0.9670 0.5610 0.1550 463.9290 81 0.5610 81 -8.6560 ΤP -8.2260 -8.2260 -7.7960 455.7030 455.703 81 86 167 2.3280 1.2750 HI 1.2747 0.2210 456.9777 378 211 -6.7470 -5.7820 ΤP -5.7790 -4.8080 451.1987 451.197 378 194 572 3.0350 ΗI 2.4483 2.4480 1.8620 453.6470 689 117 -5.3490 MON-M1 -4.9650 -4.9653 -4.5820 448.6817 448.680 20' INSIDE WOODS 689 77 766 6.2460 ΗI 5.3050 5.3053 4.3650 453.9870 188 954 -7.8680 MON-M2 -6.7600 -6.7620 -5.6500 447.2270 447.224 23' N OF PVMT 954 222 1176 5.5630 4.5750 ΗI 4.5733

Page 1



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

May 1, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency, Region 4 64 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Result of Landfill Cap Survey

Lees Lane Landfill, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees Lane Landfill Site, Section 4.5 Surveying, attached for your information is one copy each of the following reports:

Monument Elevation Results Level Circuit Monitoring

If you have any questions or concerns about the report please contact me at 502-689-8284 or heather.dodds@louisvillemsd.org.

Sincerely,

Heather Dodds, PE

Performance Metrics Supervisor

Heather DOR

HND/hnd

cc:

Daniel Phelps, Kentucky Division of Waste Management

Anthony Marconi, MSD



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#### Seadler, Donna

From:

Seadler, Donna

Sent:

Friday, April 24, 2015 1:39 PM

To:

**Heather Dodds** 

Subject:

RE: LMSD - Lees Lane Landfill first semi-annual sampling event, April 2015

Thanks.

From: Heather Dodds [mailto:heather.dodds@louisvillemsd.org]

Sent: Friday, April 24, 2015 10:14 AM

To: Seadler, Donna Cc: Tony Marconi

Subject: FW: LMSD - Lees Lane Landfill first semi-annual sampling event, April 2015

Donna -

See below - during the March monthly screening event for the original well G-1 and new wells GMW-1, GMW-2, and GMW-3, there were low levels of methane detected in GMW-3. This was repeated in the screening event in April. This well has occasionally shown low levels of methane, and the levels may be associated with effects of recent river flooding on the groundwater table. Please let me know if you have questions. Thanks -

**Heather Dodds** 

Performance Metrics Supervisor Louisville MSD 3050 Commerce Center Place 40211 502/689-8284

From: Davis, Chris (Louisville) [mailto:chris.d.davis@aecom.com]

Sent: Friday, April 24, 2015 9:54 AM

To: Heather Dodds

Cc: Tony Marconi; Jongleux, Bob; Crumpton, Kristen

Subject: LMSD - Lees Lane Landfill first semi-annual sampling event, April 2015

#### Hello Heather,

The semi-annual sampling event was completed yesterday with no issues to report. As we discussed earlier, well GMW-3 exhibited detectable methane concentrations around 1.8% during the March screening event. Prior to collecting the sample yesterday, well GMW-3 was pre-screened and a Methane concentration of 2.6% was measured. We will keep you updated on the timing of the analytical results and reporting schedule. Please let us know if you have any questions. Thanks.

#### **Chris Davis**

Geologist, Geosciences/Environmental Group D 1-502-217-1514 C 1-513-237-1184 <a href="mailto:chris.d.davis@aecom.com">chris.d.davis@aecom.com</a>

#### **AECOM**

Observation Rep	ort No:	Date of	Observation	
		Site Man		

Observer's Signature: AMM Date: 5/75/15

Obs	ervations:	Yes*	No	Not Observed	Comment No.
1.	Subsidence of slope, sloughing or caving		$\neq$		-
2.	Erosion of rip-rap or underlying material		<u>X</u>		
3.	Abnormally damp areas, wet ground vegetation		$\nearrow$		
4.	Soft spots in surface	_	X		
5.	Seepage, water flow, piping, or sand boils		X		
6.	Undermining of rip-rap		*		
7.	Vegetative growth on rip-rap slope		X	_	
8.	Buildup of trash and debris on rip-rap	1	_		recent NO
9.	Exposed trash or filter fabric		X		Missales
10.	Tilting trees		¥		
11.	Tension cracks		<u>x</u>		
12.	Survey monuments missing or damaged	_	<u>Y</u>	_	
Sec	tion F: Surface Waste Cleanup/	Cover			
Obse	ervations:	Yes*	No	<u>Not</u> Observed	Comment No.
		100	<u></u>	<del>ODDCI VCC</del>	<u> </u>
1.	Swales greater than 1 foot wide and 2 inches deep	X			***
2.	Cracks greater than 1 inch wide and 6 inches deep	<u>&gt;</u>			
3.	Areas of erosional damage to grass	<u>x</u>			
4.	Inadequate grass cover (area > 36 ft <sup>2</sup>	¥	<b>*</b>		·
5.	Ponded water (area larger than 2 feet in diameter and 3 inches	*			modim
6.	deep) Erosion or ponded water greater				nonion
	than 12 inches deep (requires immediate repair)	_	<u>X</u>		

<sup>\*</sup>If yes, assign a comment no. in the last column and follow instructions on comment sheet.

REPORT OF FIELD OBSERVATION LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

5.	Service box lids not in place		X		
6.	Alarm and blower controls not functioning		¥		
7.	Settlement or tilting of well/moisture trap concrete collars	X	_	_	
8.	Well/moisture trap covers missing or damaged	<u> </u>			
9.	Excessive vegetation covering wells/moisture traps		X		
10.	Adjustment valve inaccessible		X		-
11.	Well/moisture trap caps, plugs, and piping missing	X			
12.	Blower house and well/moisture trap signs missing or damaged	4	-		
Sec	tion D: Groundwater & Gas Moni	tor Wel	TB		
	ervations:			<u>Not</u> Observed	Comment No.
		Yes*	<u>No</u> \/	Not Observed	Comment No.
Obs	ervations: Wells unlocked				
Obs.	ervations:  Wells unlocked  Guard posts and rails missing or damaged				
Obs	ervations:  Wells unlocked  Guard posts and rails missing or damaged  Protective casing missing, damaged or rusted				
Obs.	ervations:  Wells unlocked  Guard posts and rails missing or damaged  Protective casing missing, damaged or rusted  Concrete pads damaged or cracked				
Obse 1. 2. 3. 4.	ervations:  Wells unlocked  Guard posts and rails missing or damaged  Protective casing missing, damaged or rusted  Concrete pads damaged or cracked  Possible surface water infiltration into wells				
Obsc 1. 2. 3.	Wells unlocked Guard posts and rails missing or damaged Protective casing missing, damaged or rusted Concrete pads damaged or cracked Possible surface water infiltration into wells Excessive vegetation or debris around wells				
Obse 1. 2. 3. 4.	Wells unlocked Guard posts and rails missing or damaged Protective casing missing, damaged or rusted Concrete pads damaged or cracked Possible surface water infiltration into wells Excessive vegetation or debris				
Obsc 1. 2. 3. 4. 5.	Wells unlocked Guard posts and rails missing or damaged Protective casing missing, damaged or rusted Concrete pads damaged or cracked Possible surface water infiltration into wells Excessive vegetation or debris around wells				

## REPORT OF FIELD OBSERVATION LEE'S LANE LANDFILL SITE, LOUISVILLE, KENTUCKY

	servation Report No: 15.15			Observation	
	eld Personnel: Windul DedS	Time De	eparte	d Site: 25	INIV
Sec	ction A: General Site Condition	ıs			
0b:	servations:	<u>Yes</u> *	<u>No</u>	Not Observed	Comment No.
1.	Major settlement of topsoil or erosion exposing waste/fill material	_	X	_	
2.	Evidence of leachate seepage		X		
3.	Distressed Vegetation		$\overline{\checkmark}$		
4.	Pot holes, erosion of access		/		
	road	<u>A</u>		.—	·
Sec	tion B: Institutional Controls				
Oba	servations:	<u>Yes</u> *	<u>No</u>	Not Observed	Comment No.
1.	Structural problem with Lee's		Y		
_	Lane gate or barricade		<u> </u>		
2.	Structural problem with Putman Ave. barricade	_	7		
3.	Lee's Lane gate unlocked		V		
4.	Broken or missing lock		$\nabla$	-	
			<del>^</del> -	_	
Sec	tion C: Gas Collection System				
				Not	Comment
Oba	servations:	Yes*	No	Observed	No.
1.	Vandalism to blower house wells, or moisture traps		$\overline{\chi}$	_	
2.	Structural damage to blower house		<u>x</u>		
3.	Blower not operating or visible	_		<del></del>	
	damage	_	<u>×</u>		<del></del>
4.	Blower house not secure and unclean		7	-	
Obs	servations:	<u>Yes</u> *	<u>No</u>	Not Observed	Comment No.

Observation Report No: FY15-3Q

Date of Observation: 03/25/2015

Instruction: If any item is checked yes, provide details of the problem and maintenance recommendations below and indicate the location of deficiency on the site map provided.

Comment	Comment	Corrective Action Performed
No. A-4	Potholes in access road	None – Consent Order
A-4	Potnotes in access road	Capped Item (e)
C-7	Collar missing on multiple wells/moisture traps	MSD to coordinate with
		EPA / KDEP to determine next steps
C-8	Covers missing from multiple wells/moisture traps	See C-7
C-11	W26 missing cap	See C-7
C-12	Signs missing from multiple wells/moisture traps	See C-7
F-1	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-2	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-3	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-4	Damage from vehicular trespassing	None – Consent Order Capped Item (k)
F-5	Damage from vehicular trespassing	None – Consent Order Capped Item (k)



Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org

March 25, 2015

Ms. Donna Seadler Remedial Project Manager, Superfund Division US Environmental Protection Agency Region 4 61 Forsyth St SW, 11<sup>th</sup> Floor Atlanta, GA 30303

Subject:

Report of Field Observation – FY15, Third Quarter (FY15-3Q)

Lees Lane Superfund Site, Jefferson County, Kentucky

Administrative Order on Consent, USEPA Docket No. 91-32-C

Dear Ms. Seadler:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan for Post Removal Site Control at the Lee's Lane Landfill Site, attached for your information and files is one copy of the Report of Field Observation (Appendix J).

Please advise if you have any questions concerning the following information.

Sincerely,

Heather Dodds

Performance Metrics Supervisor

Heatucia 776

HND/hnd

cc: S

Sheri Adkins, Kentucky Division of Waste Management Daniel Phelps, Kentucky Division of Waste Management

Anthony Marconi, MSD

From:

Friedman, Heidi <Heidi.Friedman@thompsonhine.com>

Sent:

Friday, February 12, 2016 6:41 PM

To:

Sheesley, John

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Hi John – do you have some time on Tuesday to discuss? I will be traveling but can call you.

Let me know. Heidi

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

**Sent:** Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; lkirsch@goodwinprocter.com

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

#### Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site. Paragraph 1 of the AOC placed a monetary cap on the Respondents' obligation to perform certain operations and maintenance work listed in that paragraph.

EPA has not yet taken a position on whether MSD's expenditures over the years have satisfied that cap, and I understand from speaking with you last year that the PRP Group may wish to express an opinion on that question before EPA takes a position. In the documents that EPA released in response to your FOIA request, you've probably seen that MSD believes it has met its cap.

EPA plans to consider whether MSD's expenditures satisfy the cap, so if the PRP Group or any of its members would like to submit comments or statements on the matter, please send them to me by Tuesday, March 8, 2016. If you'd like to schedule a call or meeting to discuss your submission, we'd be glad to discuss options for scheduling that too.

Thank you.

#### John P. Sheesley

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

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Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

From:

Friedman, Heidi <Heidi.Friedman@thompsonhine.com>

Sent:

Monday, February 08, 2016 7:16 PM

To:

Sheesley, John; lkirsch@goodwinprocter.com

Cc:

Seadler, Donna; Waters, Melissa

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Attachments:

removed.txt

Hi John -

Thank you so much for reaching out. I will talk to the Group and be back to you shortly.

Heidi

Heidi B. (Goldstein) Friedman | Partner | Thompson Hine LLP 3900 Key Center, 127 Public Square | Cleveland, OH 44114-1291

Office: 216.566.5559 | Mobile: 216.970.5400

Fax: 216.566.5800 | Email: Heidi.Friedman@ThompsonHine.com



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To read our Spotlight on Women Annual Report, click here.

To read our Report of the Diversity & Inclusion Initiative, click here.

Atlanta | Cincinnati | Cleveland | Columbus | Dayton | New York | Washington, D.C.



From: Sheesley, John [mailto:Sheesley.John@epa.gov]

**Sent:** Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; lkirsch@goodwinprocter.com

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

Larry and Heidi:

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> Thank you.
>
> John P. Sheesley
> Office of Regional Counsel
> U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta
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> Atlanta, GA 30303
> 404-562-8139 (P)
> 404-562-9486 (F)
> sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>

>

>

Friedman, Heidi <Heidi.Friedman@thompsonhine.com> From: Sent: Thursday, February 18, 2016 3:12 PM To: Sheesley, John Subject: Re: Lee's Lane Landfill Site -- MSD Cap Yes!! Sent from my iPhone > On Feb 18, 2016, at 12:19 PM, Sheesley, John <Sheesley. John@epa.gov> wrote: > Heidi: Thanks for your call. I'm scheduled for calls for most of the afternoon, but I will give you a call when my last one is finished, hopefully around 4:30 Eastern time. Is your cell 216-970-5400? Thanks. > From: Friedman, Heidi < Heidi. Friedman@thompsonhine.com> > Sent: Tuesday, February 16, 2016 4:09 PM > To: Sheesley, John > Subject: Re: Lee's Lane Landfill Site -- MSD Cap > Ok. I will try > Sent from my iPhone > On Feb 16, 2016, at 11:40 AM, Sheesley, John < Sheesley. John@epa.gov < mailto: Sheesley. John@epa.gov >> wrote: > Heidi: I'm tied up today but expect to be available for most of the day tomorrow. Feel free to call anytime: 404-562-8139. > From: Friedman, Heidi [mailto:Heidi.Friedman@thompsonhine.com] > Sent: Friday, February 12, 2016 6:41 PM > To: Sheesley, John > <Sheesley.John@epa.gov<mailto:Sheesley.John@epa.gov>> > Subject: RE: Lee's Lane Landfill Site -- MSD Cap > Hi John – do you have some time on Tuesday to discuss? I will be traveling but can call you. > Let me know. Heidi > From: Sheesley, John [mailto:Sheesley.John@epa.gov] > Sent: Monday, February 08, 2016 2:32 PM > To: Friedman, Heidi; > lkirsch@goodwinprocter.com<mailto:lkirsch@goodwinprocter.com> > Cc: Seadler, Donna; Waters, Melissa > Subject: Lee's Lane Landfill Site -- MSD Cap > Larry and Heidi:

> As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site.

```
> <Sheesley.John@epa.gov<mailto:Sheesley.John@epa.gov>>
> Subject: RE: Lee's Lane Landfill Site -- MSD Cap
> Hi John - do you have some time on Tuesday to discuss? I will be traveling but can call you.
> Let me know. Heidi
> From: Sheesley, John [mailto:Sheesley.John@epa.gov]
> Sent: Monday, February 08, 2016 2:32 PM
> To: Friedman, Heidi;
> lkirsch@goodwinprocter.com<mailto:lkirsch@goodwinprocter.com>
> Cc: Seadler, Donna; Waters, Melissa
> Subject: Lee's Lane Landfill Site -- MSD Cap
>
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> Thank you.
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> John P. Sheesley
> Office of Regional Counsel
> U.S. Environmental Protection Agency, Region 4 Sam Nunn Atlanta
> Federal Center
> 61 Forsyth Street, SW
> Atlanta, GA 30303
> 404-562-8139 (P)
> 404-562-9486 (F)
> sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>
>
```

>

From: Sent: To:	Friedman, Heidi <heidi.friedman@thompsonhine.com> Thursday, February 18, 2016 6:25 PM Sheesley, John</heidi.friedman@thompsonhine.com>
Subject:	RE: Lee's Lane Landfill Site MSD Cap
Sorry John - I will try you to	morrow.
Original Message	
From: Sheesley, John [mailt Sent: Thursday, February 18 To: Friedman, Heidi	
Subject: Re: Lee's Lane Land	fill Site MSD Cap
	ice mail. Feel free to call me back at 770-503-5700 for the next hour or so. I expect to be on time, so if we can't connect today, I should be free most of the day tomorrow in the office at
From: Friedman, Heidi <hei Sent: Thursday, February 18 To: Sheesley, John</hei 	idi.Friedman@thompsonhine.com> 3, 2016 3:11 PM
Subject: Re: Lee's Lane Lane	dfill Site MSD Cap
Yes!!	
Sent from my iPhone	
	PM, Sheesley, John <sheesley.john@epa.gov> wrote:</sheesley.john@epa.gov>
•	<ol> <li>I'm scheduled for calls for most of the afternoon, but I will give you a call when my last one d 4:30 Eastern time. Is your cell 216-970-5400? Thanks.</li> </ol>
> Heidi < H	leidi.Friedman@thompsonhine.com>
> Sent: Tuesday, February 1 > To: Sheesley, John	_ ,
> Subject: Re: Lee's Lane La	ndfill Site MSD Cap
> Ok. I will try	
> Sent from my iPhone	
	AM, Sheesley, John <sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>&gt; wrote:</sheesley.john@epa.gov<mailto:sheesley.john@epa.gov>
> Heidi: I'm tied up today b 8139.	ut expect to be available for most of the day tomorrow. Feel free to call anytime: 404-562-
	ailto:Heidi.Friedman@thompsonhine.com] , 2016 6:41 PM

From:

Friedman, Heidi <Heidi.Friedman@thompsonhine.com>

Sent:

Wednesday, March 02, 2016 6:01 PM

To:

Sheesley, John

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Hi John-

any update on what we discussed?

thx H

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

Sent: Monday, February 08, 2016 2:32 PM

To: Friedman, Heidi; lkirsch@goodwinprocter.com

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

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Thank you.

#### John P. Sheesley

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sheesley.john@epa.gov

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Thank you.

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404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

From:

Friedman, Heidi < Heidi. Friedman@thompsonhine.com >

Sent:

Friday, March 04, 2016 4:14 PM

To:

Sheesley, John

Subject:

RE: Lee's Lane Landfill Site -- MSD Cap

Great-thanks John!

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

**Sent:** Friday, March 04, 2016 4:05 PM

To: Friedman, Heidi

Subject: RE: Lee's Lane Landfill Site -- MSD Cap

Yes, we've decided to postpone consideration of this question until a later time. We'll let you know when we take it up again.

#### John P. Sheesley

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U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

From: Friedman, Heidi [mailto:Heidi.Friedman@thompsonhine.com]

Sent: Wednesday, March 02, 2016 6:01 PM
To: Sheesley, John <Sheesley.John@epa.gov>
Subject: RE: Lee's Lane Landfill Site -- MSD Cap

Hi John-

any update on what we discussed?

thx

Н

From: Sheesley, John [mailto:Sheesley.John@epa.gov]

**Sent:** Monday, February 08, 2016 2:32 PM **To:** Friedman, Heidi; <a href="mailto:lkirsch@goodwinprocter.com">lkirsch@goodwinprocter.com</a>

Cc: Seadler, Donna; Waters, Melissa

Subject: Lee's Lane Landfill Site -- MSD Cap

Larry and Heidi:

As you know, EPA issued an Administrative Order on Consent (AOC) to Respondents Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jefferson County, Kentucky, in 1991 concerning the Lee's Lane Landfill Site.

•		
•		

From:

Cleveland, Daniel (EEC) < Daniel. Cleveland@ky.gov>

Sent:

Friday, March 04, 2016 9:27 PM

To:

Sheesley, John

Subject:

RE: Lee's Lane Landfill Site - MSD Cap

John,

Thanks for the email. I was scheduling something with Dan and Christoph to discuss. We'll have something all ready to go when the time comes.

From: Sheesley, John [Sheesley.John@epa.gov]

Sent: Friday, March 04, 2016 4:03 PM

To: Cleveland, Daniel (EEC)

Subject: Lee's Lane Landfill Site - MSD Cap

Daniel: I called your office just now but found you're out, so I'm sending a quick email to let you know that the EPA is postponing its decision as to whether MSD's expenses have hit the cap set forth in its settlement agreement for the Lee's Lane Landfill Site. After talking with the PRP group some more about this issue, we'd prefer not to upset the working relationship that the parties have established or the progress that's being made on site issues now. I expect we will take up the cap issue again in the future, and we'll seek your input again at that time. If you have any questions, feel free to give me a call. Thank you.

#### John P. Sheesley

Office of Regional Counsel
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
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Atlanta, GA 30303
404-562-8139 (P)
404-562-9486 (F)
sheesley.john@epa.gov

#### HULL Z June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigat on November 2015

## REDACTED

### Exemption 6 Personal Privacy

_	,		
Sample Number	Regional	239-0615-0103	239-0615-0101
Location	Screening	Unit 032	Unit 032
Sub Location	Level	AMB	LR
Matrix	Air	Αlr	Alr
Sample Date		6/11/2015	6/11/2015
Analysis .		VDC	VOC
Analyte	µµ/m³	μg/m³	μg/m <sup>1</sup>
n Heptane	NS	0.70 U	3.6
n-Hexane	7300	0.70 บ	7.9
2 Propanol (Isopropyl Alcohol)	73000	7.0 U	8.6 U
m,p-Xy'enes	1000	10	13
Dichloromethane (Methylene Chloride)	1000	0 70 U	0 B6 U
Methyl tert-Butyl Ether	110	0.14 U	0 17 U
Naphthalene	0.83	13	0.94
o Xylene	1000	0 70 U	3.9
Propene	31000	071	16
Styrene	10000	12	1.7
Tetrahydrofuran (THF)	21000	0.70 U	0.86 U
Talvene	52000	3.5	17
trans-1,2-Dichlorpethene	NS	0 14 U	0170
trans-1,3-Dichloropropene	NS	0.70 U	0.86 U
Trichlorofluoromethane (CFC 11)	7300	15	1.6
Vinyl Acetate	2100	700	97
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	510	700
Methane	NS	2.5	9.1
Helium	NS	NA NA	NA

VOC volatile organic compounds

 $\mu g/m^2$  - micrograms per cubic meter, ppmv - parts per million by volume, % percent U not detected above specified reporting limit, F - estimated

NS not specified, NA-not analyzed

# TABLE 2 June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigation November 2015

### Exemption 6 Personal Privacy

# REDACTED

Sample Number	Regional	239-0615-0103	239-0615-0101
Location	Screening	Unit 032	, Unit 032
Sub Location	Level	AMB	UR.
Matrix	Air	Alr	Air
Sample Date Analysis		6/11/2015 VOC	6/11/2015 VOC
Benzene	3.1	0.41	4.8
1,3-Butadiene	0.8	0 28 U	5.2
Carbon Tetrachloride	4.1	0.63	0.62
Chiproform	102	0.2	0.31
Oibromochloromethane	1	0.14 U	0.17 U
1,4-Dichlorobenzene	2.5	0.14 U	3.9
1,2-Dichloroethane	1.1	0.14 U	0.17 U
Ethylbenzene	11	0.70 U	3.3
Tetrachloroethene	42	0.14 U	0.17 U
Trichloroethene (TCE)	2.1	0.14 U	0.17 U
Vinyl Chloride	1.6	0.14 U	0.17 U
1,1,1-Trichloroethane (TCA)	52000	0.14 U	0.17 U
1,1,2,2-Tetrachloroethane	0.48	0.14 U	0.17 U
1,1,2-Trichloroethane	1.8	0.14 U	0 17 U
1,1,2-Trichlorotri/luoroethane	310000	0.63	0.64
1,1-Dichloroethane (1,1-DCA)	18	0.14 U	0170
1,1-Dichloroethene (1,1-DCE)	2100	0.14 U	0.17 U
1,2,3-Trichloropropane	3.1	0.70 UJ	0.86 UJ
1,2,4-Trimethylbenzene	73	0.70 U	2.9
1,2-Dibromoethane	0.047	0.14 U	0.17 U
1,2-Dichlorobenzene	2100	0.14 U	0 17 U
1,2-Dichloropropane	2.8	0.14 U	0 17 U
1,3,5-Trimethylbenzene	NS	0.70 U	085 U
1,3-Dichlorobenzene	NS	0.14 U	0 17 U
1,4-Dioxane	5.6	0.70 U	Q 86 U
2-Butanone (MEK)	52000	7.0 U	8.5 ป
2-Hexanone	310	0.70 U	086 U
4-Ethyltoluene	NS	0.70 U	0.91
4-Methyl-2-pentanone	31000	0.70 U	086 U
Acetone	320000	17	41
Bromoform	26	0.70 U	0 86 U
Bromomethane	52	0.28 U	0.34 U
Chlorobenzene	520	0.14 U	0.17 U
Chloroethane	100000	0.28 U	0.34 U
Chloromethane	940	0.33	1.8
cls-1,2-Dichloroethene	NS	0.14 U	0.17 U
cis-1,3-Dichloropropene	NS	0.70 U	0860
Cyclohexane	63000	1.4 U	1.7 U
Dichlorodifluoromethane (CFC 12)	1000	2.7	2.7
Ethyl Acetate	730	4.1	5.5
1,2-Dichloro-1,1,2,2-tetra/luoroethane (CFC 114)	NS	0.70 U	0.86 U

#### TABLE 2 June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigation November 2015

### Exemption 6 Fersonal Privacy

Sample Number	Regional	239-0615-0102
Location :	Screening	Unit 032
Sub Location	Level	55
Matrix	Soli Gas	Soll Gas
Sample Date		6/11/2015
Analysis		VOC
Analyte	μ <b>μ/</b> m³	Hg/m³
Cyclohexane	630000	1.6 U
Dichlorodifluoromethane (CFC 12)	10000	2.9
Ethyl Acetate	7300	32
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS NS	0 B2 U
n Heptane	NS	0.82 U
n Hexane	73000	0.82 U
2-Propanol (Isopropyl Alcohol)	730000	8.2 U
m,p-Xylenes	10000	20
Dichloromethane (Methylene Chloride)	10000	0.82 U
Methyl tert-Butyl Ether	1100	0.16 U
Naphthalene	8.3	2.9
o-Xylene	10000	0.82 U
Propene	310000	0.82 U
Styrene	100000	0.82 U
Tetrahydrofuran (THF)	210000	0.82 U
Toluene	520000	7.7
trans-1,2 Dichloroethene	NS	0.15 U
trans-1,3-Dichloropropene	NS	Q.82 U
Trichlorofluoromethane (CFC 11)	73000	1.8
Vinyl Acetate	21000	8.2 U
Analysis	Fixed Gas	Fixed Gas
Carbon Dłoxide	N5	53000
Meshane	i ns	0.82 U

Methane Hellum VDC - volatile organic compounds

 $\rho g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, X - percent

NS

0 82 U NA

N5 not specified, NA-not analyzed

## REDACTED

U - not detected above specified reporting limit, J - estimated

# TABLE 2 June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigation November 2015

Examption a Personal Privacy

# REDACTED

Sample Norther	Regional	239-0615-0102
Location 2	Streening	239-0615-0102 Unit 032
Sub Location	Level	SS
Maria	Soll Gas	Soll Gas
Sample Date	JOI 023	6/11/2015
Anahals		VOC.
Analyte	ug/m³	µg/m
lenzene	71	0.16 U
1.3-Butadiene	80	0.16 U
Carbon Tetrachloride	41	0.33 0
Chloroform	1020	6.1
Dibromochloromethane	10	D.16 U
1,4-Dichlorobenzene	25	0.65
1,2-Dichloroethane	11	0.16 U
Ethylbenzene	110	0.82 U
Tetrachloroethene	420	3.1
Trichloroethene (TCE)	21	0.16 U
Vinyl Chloride	16	0.16 U
1.1.1-Trichloroethane (TCA)	520000	0.26
1,1,2,2-Tetrachloroethane	4.8	0.16 U
1,1,2-Trichloroethane	18	0.16 U
1,1,2-Trichlorotr/flugroethane	3100000	0.69
1,1-Dichloroethane (1,1-DCA)	180	0.16 U
1,1-Dichioroethene (1,1-DCE)	21000	0.16 U
1,2,3-Trichloropropane	31	0.82 LU
1,2,4-Trimethylbenzene	730	0.82 U
1,2-Dibramoethane	0.47	0.16 U
1,2-Dichlorobenzene	21000	0.16 U
1,2-Dichloropropane	28	D:16 U
1,3,5-Trimethylbenzene	NS	0 82 U
1,3-Dichlorobenzene	NS:	0.16 U
1,4-Dioxane	56	0 82 U
2-Butanone (MEK)	520000	8.2 U
2-Hexanone	3100	0.82 U
4-Ethyltoluene	N5	0.82 U
4-Methyl-2-pentanone	310000	0.82 0
Acetone	3200000	8.2 U
Bromoform	260	0.82 U
Bromomethane	520	0.33 U
Chlorobenzene	5200	0.18
Chloroethane	1000000	0.33 U
Chloromethane	9400	0.33 U
cis-1,2-Dichloroethene	NS	0.16 U
cis-1,3-Dichloropropene	NS	0.82 U

detected above the initial screening levels in the living space indoor air but were below a health-based risk management level. Neither 1,4-dichlorobenzene, benzene nor naphthalene were detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air and crawl space. These constituents are frequently found in cleaning products and mothballs. 1,3-butadiene has been found to be a byproduct of cigarette smoke.

Compound	Soil Gas Sampling Results	Soil Gas Vapor Intrusion Screening Level	Ambient Air Results	indoor Air (First Floor) Results	Air Vapor Intrusion Screening Level
	Dec. 2014		June 2015		
1,3-Butadiene	28	8.0		5.2	0.81
1,4-Dichlorobenzene				3.9	2.5
Benzene				4.8	3.1
Napthalene			1.3	.94	.83

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at <a href="http://www.epa.gov/oswer/vaporintrusion/basic.html">http://www.epa.gov/oswer/vaporintrusion/basic.html</a>.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna@epa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela@epa.gov.

Donna K. Seadler

Remedial Project Manager



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

REDACTED

December 16, 2015

Exemption 7	$=\theta^{\alpha}$	Interference with Enforcement Proceedings
		Right to Fer Trial
7	<u>    (</u> C)	Unwanted invasion of Personal Privacy

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) indoor air, one (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of three (3) samples in June 2015. Due to potential concerns about data quality, EPA attempted a second soil gas sample in July 2015 for comparison. Unusually wet conditions prevented a second soil gas sample from being successfully collected at that time. However, comparisons of the June and July 2015 soil gas results on those homes where it was successful indicate that the June 2015 data is satisfactory. The indoor air and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Four constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,4-dichlorobenzene, benzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas and indoor air but were below a health-based risk management level. 1,4-dichlorobenzene, benzene, and naphthalene were

TABLE 2

### REDACTED

Sample Number	Regional	239-0615-0096	239-0615-0094	239-0615-0095
Location	Screening	Unit 007	Unit 007	Unit 007
Sub Location	Level	CS	LR	LRCO
Matrix	Air	Alr	Alr	Air
Sample Date		6/10/2015	6/10/2015	6/10/2015
Analysis	1	VOC	voc	voc
Analyte	µg/m³	μg/m²	h8/w <sub>y</sub>	μg/m³
n-Heptane	NS	1.0	2.0	2.2
n-Hexane	7300	11	0.85	0.98
2- Propanol (Isopropyl Alcohol)	73000	9.20	6.6 U	7.9 U
m,p Xylenes	1000	4.5	9.7	11
Dichloromethane (Methylene Chloride)	1000	0.92 U	0.66 U	0.79 U
Methyl tert-Butyl Ether	110	0.18 U	0130	0.16 U
Naphthalene	0.83	6.3	1.3	1.5
o-Xylene	1000	1.4	2.6	3.0
Propene	31000	12	16	17
Styrene	10000	1.3	4.0	4.7
Tetrahydrofuran (THF)	21000	0.92 U	0.66 U	0.79 U
Toluene	52000	18	17	20
trans-1,2-Dichloroethene	NS	0.18 U	0.13 U	0.16 U
trans-1,3-Dichloropropene	N5	0.92 U	0.66 ป	0.79 U
Trichlorofluoromethane (CFC 11)	7300	7.7	15	17
Vinyl Acetate	2100	920	6.6 U	79U
Analysis	Fixed Gas	Pixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	440	590	740
Methane	NS	1.4	1.5	1.4
Helium	NS	NA	NA	NA

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume,

U - not detected above specified reporting limit, J estimated

NS - not specified, NA-not analyzed

Sample Number	Regional	23970615-0096	239:0615:0094	239-0615-0095
Location	Screening	Unit 007	Unit 007	Unition
Sub Location	Level	ds 🦠	LR	UR CO
Matrix	Air	Air	Air de	Alf.
Sample Date	<b>4</b>	6/10/2015	6/10/2015	6/10/2015
Analysis		. voe	võc	VOC
Analyte	l μg/m³	ht/w	h&\w(	Hg/m
Benzene	3.1	3.3	5.6	6.4
1,3-Butadiene	0.80	2.8	4.3	4.7
Carbon Tetrachloride	4.1	0.47	0.53	0.58
Chloroform	102	1.4	1.3	1.5
Dibromochloromethane	1.0	0.18 U	0.25	0.29
1,4-Dichlorobenzene	2.5	0.26	0.16	0.18
1,2-Dichloroethane	1.1	0.66	1.8	2.1
Ethylbenzene	11	1.7	4.0	4.6
Tetrachloroethene	42	0.29	0.13 U	0.16 U
Trichlaroethene (TCE)	2.1	0.18 U	0.13 U	0.16 U
Vinyl Chloride	1.6	0.18 U	0.13 U	0.16 U
1,1,1-Trichloroethane (TCA)	52000	0.180	0.13 U	0.16 U
1,1,2,2-Tetrachlorgethane	0.48	0.18 U	0.13 U	0.16 ป
1,1,2-Trichloroethane	1.B	0.18 U	0.13 U	0.16 U
1,1,2-Trichlorotrifluoroethane	310000	0.53	0.59	0.68
1,1-Dichloroethane (1,1-DCA)	18	0.18 U	0.13 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.18 U	0.13 U	0.16 U
1,2,3-Trichloropropane	3.1	0.92 UJ	0.66 UJ	0.79 ปร
1,2,4-Trimethy/benzene	73	0.92 บ	1.5	1.7
1,2-Dibromoethane	0.047	0.18 U	0.13 U	0.16 U
1,2-Dichlorabenzene	2100	0.18 U	0.13 U	0.15 U
1,2-Dichloropropane	2.8	0.18 U	0.13 U	0.16 U
1,3,5-Trimethylbenzene	NS	0.92 U	0.66 U	0.79 U
1,3-Dichlorobenzene	N5	0.18 U	0.13 U	0.16 U
1,4-Dioxane	5.6	0.92 U	0.66 บ	0.79 U
2-Butanone (MEK)	52000	9.2 U	7.9	9.1
2-Hexanone	310	0.92 U	0.66 U	0.79 บ
4-Ethyltoluene	NS	0.92 U	0.66 U	0.79 U
4-Methyl-2-pentanone	31000	0.92 U	0.66 U	0.7 <b>9</b> U
Acetone	320000	27	66	74
Bromaform	26	0.92 U	0.66 U	0.79 U
Bromomethane	52	0.37 U	0.26 U	0.32 U
Chlorobenzene	520	0.18 U	0.13 U	0.16 U
Chloroethane	100000	0.37 U	0.26 U	0.32 U
Chloromethane	940	2.1	3.6	3.0
cis-1,2-Dichloroethene	NS	0.18 U	0.13 U	0.16 U
cis-1,3-Dichloropropene	NS	0.92 U	0.66 U	0.79 U
Cyclohexane	63000	1.8 U	1.3 U	1.6 U
Dichlorodifluoromethane (CFC 12)	1000	2.0	2.2	2.5
Ethyl Acetate	730	5.0	16	18
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.92 U	0.66 U	D.79 U

### REDACTED

Sample Number	Regional	239-0615-0097	239-0715-0082	239-0715-0083
Location	Screening	Unit 007	Unit 007	Unit 007
Sub Location	Level	AMB	Amblent	Ambient CO
Matrix	Air	Air	Air	Alr
Sample Date		6/10/2015	7/25/2015	7/25/2015
Analysis		voc	voc	VOC
Analyte	μg/m³	hiB\iu <sub>3</sub>	h8/w <sub>g</sub>	μg/m³
n-Heptane	N5	0.85 U	0.87 U	2.2
n Hexane	7300	0 85 U	1.3	1,4
2-Propanol (Isopropyl Alcohol)	73000	8.5 U	8.7 U	12
m,p-Xylenes	1000	2.7	1.4	43
Dichloromethane (Methylene Chloride)	1000	0 85 U	0871	0.76 U
Methyl tert-Butyl Ether	110	0 17 U	0.17 U	0 15 U
Naphthalene	0.83	2.3	0.87 U	2.1
o-Xylene	1000	1.3	0.87 U	1.8
Propene	31000	1.1	1.3	85
Styrene	10000	0.85 U	0.87 U	0.76 U
Tetrahydrofuran (THF)	21000	0 85 U	0.87 U	0.76 U
Toluene	52000	7.70	5.1	16
trans 1,2-Dichloroethene	NS	0170	0.17 U	0.15 U
trans-1,3-Dichloropropene	NS	0 85 U	0 87 U	0 76 U
Trichlorofluoromethane (CFC 11)	7300	1 60	1.1	12
Vinyl Acetate	2100	850	870	7.6 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	550	0 17 U	0.15 U
Methane	NS	2.9	0.17 U	0.15 U
Helium	N5	NA	43 U	38 U

VOC - volatile organic compounds

µg/m³ - micrograms per cubic meter, ppmv - parts per million by volume, % percent

U - not detected above specified reporting limit, 1 - estimated

NS - not specified, NA-not analyzed

### Exemption & Personal Privacy

## TABLE 2 June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigation November 2015

### REDACTED

Sample Number &	Regional	239,0615.0097	239-0715-0082	239-0715-0083
Location	<b>Screening</b>	Unw007	Unit 007	Unit 087
Sub Location ·	Level	AMB	Ambient	- Amblent CO
Marix	Air	Air		elr:
Sample Date		6/10/2015	7/25/2015	7/25/2015
Analysis		VOC	VØG	VOG
Analyte	µg/m³	hB/m,	h8/00,	jug/m³
Benzene	3.1	0.57	0.45 U	0.46 U
1,3-Butadiene	0.80	0.34 U	0.35 U	0.32
Carbon Tetrachloride	4.1	0.54	0.45	0.45
Chloroform	102	0.43	0.26	0.27
Dibromochloromethane	1.0	0.17 U	0.17 U	0.15 U
1,4-Dichlorobenzene	2.5	0.17 U	0.17 U	0.15 U
1,2-Dichloroethane	1.1	0.17 U	0.17 U	0.15 U
Ethylbenzene	11	0.85 U	0.87 บ	0.94
Tetrachloroethene	42	0.17 U	0.19	0.23
Trichloroethene (TCE)	2.1	0.17 U	0.17 U	0.15 U
Vinyl Chloride	1.6	0.17 U	0.17 U	0.15 U
1.1,1-Trichloroethane (TCA)	52000	0.17 U	0.17 U	0.15 ป
1,1,2,2-Tetrachloroethane	0.48	0.17 U	0.17 U	0.15 U
1,1,2-Trichloroethane	1.8	0.17 U	0.17 U	0.15 U
1,1,2-Trichlorotrifluoroethane	310000	0.62	0.52	0.51
1,1-Dichloroethane (1,1-DCA)	18	0.17 U	0.17 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.17 U	0.17 ປ	0.15 U
1,2,3-Trichloropropane	3.1	0.85 UI	0.87 UJ	0.76 UJ
1,2,4-Trimethylbenzene	73	1.50	0.87 U	3.0
1,2-Dibromoethane	0.047	0.17 U	0.17 U	0.15 U
1,2-Dichlorobenzene	2100	0.17 U	0.17 U	0.15 U
1,2-Dichloropropane	2.8	0.17 U	0.17 U	0.15 U
1,3,S-Trimethylbenzene	N5	0.85 U	0.87 U	0.76
1,3-Dichlorobenzene	NS	0.17 U	0.17 ป	0.15 U
1,4-Dioxane	5.6	0.85 U	0.87 ป	0.76 U
2-Butanone (MEK)	52000	8.5 U	8.7 U	7. <b>6</b> U
2-Hexanone	310	0.85 U	0.87 ป	0.76 U
4-Ethyltoluene	NS	0.85 U	0.87 U	0.76 U
4-Methyl-2-pentanone	31000	0.85 U	0.87 U	2.0
Acetone	320000	19.00	12	19
Bromoform	26	0.85 U	0.87 U	0.76 U
Bromomethane	52	0.34 U	0.17 U	0.15 U
Chlorobenzene	520	0.17 U	0.17 ป	0.15 U
Chloroethane	100000	0.34 U	0.17 U	0.15 U
Chloromethane	940	0.34 U	0.35 U	0.30 U
cis-1,2-Dichloroethene	NS	0.17 U	0.17 U	0.15 U
cis-1,3-Dichloropropene	NS	0.85 U	0.87 U	0.76 U
Cyclohexane	63000	1.7 U	1.7 U	1.5 U
Dichlorodifluoromethane (CFC 12)	1000	2.9	2.4	2.4
Ethyl Acetate	730	6.2	2.0	4.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.85 U	0.87 U	0.7 <b>6 U</b>

#### 2 of 2 REDACTED

Sample Number	Regional	239-0615-0105	239-0715-0081
Location	Screening	Unit 007	Unit 007
Sub Location	Level	SG	SG
Matrix	Soll Gas	Soil Gas	Soll Gas
Sample Date		6/10/2015	7/24/2015
Analysis	ł	VOC	VOC
Analyte	μg/m³	μ <b>g</b> /m³	μg/m³
Cyclohexane	630000	13	1.6 U
Dichlorodifluoromethane (CFC 12)	10000	1.3	2.4
Ethyl Acetate	7300	1.6 U	1.8
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.82 U	0.79 U
n-Heptane	NS	22	0.79 U
n-Hexane	73000	34	3.5
2-Propanoi (Isopropyl Alcohol)	730000	8.2 U	7.9 U
m,p-Xylenes	10000	28	1.7
Dichloromethane (Methylene Chloride)	10000	2.9	0.79 U
Methyl tert-Butyl Ether	1100	0.16 U	0.16 U
Naphthalene	8.3	1.5	0.79 U
a-Xylene	10000	11	0.79 U
Propene	310000	73	6.1
Styrene	100000	0.82 U	0.79 U
Tetrahydrofuran (THF)	210000	0.82 U	0.79 U
Toluene	520000	52	5.4
trans-1,2-Dichloroethene	NS	0.16 U	0.16 U
trans-1,3-Dichloropropene	NS	0.82 U	0.79 U
Trichlorofluoromethane (CFC 11)	73000	1.9	1.1
Vinyl Acetate	21000	8.2 U	8.0
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	20000	0.16 U
Methane	N5	7.9 U	0.16 U
Helium	NS	390000	53

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed



Sample Number & Locations Sublice attories Sublice attories	Regional Screening Level	239-0615-0105 Unit 007.	239:07/45:0081 - Enigoo7 - 3GI
Matrix Re de Sample:Date: (1) Analysis	Sõll Gas	Soli(Gass, 5/10/2015 VOG	SoliGast 7/24/2015 VDG
Analiste (	μg/m³	havus	μ <b>ε</b> /m
Benzene	31	11	0.51 U
1,3-Butadiene	8.0	5.9	0.32 U
Carbon Tetrachloride	41	0.37	0.45
Chloroform	1020	0.76	0.21
Dibromochloromethane	10	0.16 U	0.16 U
1,4-Dichlorobenzene	25	0.16 U	0.16 U
1,2-Dichloroethane	11	0.16 U	0.16 U
Ethylbenzene	110	8.90	0.79 U
Tetrachloroethene	420	1.60	0.16 U
Trichloroethene (TCE)	21	0.33	0.16 U
Vinyl Chloride	16	0.16 U	0.16 U
1,1,1-Trichloroethane (TCA)	520000	0.16 U	0.16 U
1,1,2,2-Tetrachloroethane	4.8	0.16 U	0.16 U
1,1,2-Trichloroethane	18	0.16 U	0.16 U
1,1,2-Trichlorotrifluoroethane	3100000	0.40	0.50
1,1-Dichloroethane (1,1-DCA)	180	0.16 U	0.16 U
1,1-Dichloroethene (1,1-DCE)	21000	0.16 U	0.16 U
1,2,3-Trichloropropane	31	0.82 UJ	0.79 UJ
1,2,4-Trimethylbenzene	730	11.00	0.94
1,2-Dibromoethane	0.47	0.16 U	0.16 U
1,2-Dichlorobenzene	21000	0.16 U	0.16 U
1,2-Dichloropropane	28	0.16 U	0.16 U
1,3,5-Trimethylbenzene	NS	4.30	0.79 U
1,3-Dichlorobenzene	NS	0.16 U	0.16 U
1,4-Dioxane	56	0.82 U	0.79 U
2-Butanone (MEK)	520000	8.2 U	7.9 U
2-Hexanone	3100	0.82 U	0.79 U
4-Ethyltoluene	NS	3.00	0.79 U
4-Methyl-2-pentanone	310000	0.82 U	0.79 บ
Acetone	3200000	20.00	23
Bromoform	260	0.82 U	0.79 U
Bromomethane	520	0.33 U	0.16 U
Chlorobenzene	5200	0.16 U	0.16 U
Chloroethane	1000000	0.33 U	0.16 U
Chloromethane	9400	0.33 U	0.33
cis-1,2-Dichloroethene	NS	0.16 U	0.16 U
cis-1,3-Dichloropropene	NS	0.82 U	0.79 U

based risk management level. Neither naphthalene, benzene nor 1,2-dichlorethane were detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air and crawl space. These constituents are frequently found in cleaning products and mothballs. 1.3-butadiene can also be found in cigarette smoke.

Compound	Soil Gas Sampling Results	Soli Gas Vapor Intrusion Screening Lavel	indoor Air (First Floor) Results	Indoor Air (Crawl Space) Results	Indoor Air (First Floor) Results	Indoor Air (First Floor) Results Duplicate	Amblent Air Results	Air Vapor Intrusion Screening Level
	Dec 2014		Nov 2014	June 2015				
1,3-Butadiene	23	8.0	6.7	2.8	4.3	4.7		0.81
1,2- Dichloroethane			1.6		1.8	2.1		1.1
Benzene			6.3	3.3	5.6	6.4		3.1
Naphthalene				6.3	1.3	1.5	2.3	.83

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor Intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at <a href="http://www.epa.gov/oswer/vaporintrusion/basic.html">http://www.epa.gov/oswer/vaporintrusion/basic.html</a>.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna:@epa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela:@epa.gov.

Donna K. Seadler

Remedial Project Manager

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

December 16, 2015

REDACTED

nptio: 7 (A) Interference with Enforcement Proceedings
(C) Blunth Frier (Fe)
(C) Univaried Invasion of Personal Privacy

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) crawl space air, two (2) indoor air, one (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of six (6) samples in June 2015. Due to potential concerns about data quality, a second soil gas sample was collected in July 2015 for comparison. Two (2) ambient air samples were taken at that time, also. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was **not** detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Four (4) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,2-dichloroethane, benzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas and indoor air but were below a health-based risk management level. 1,2-dichloroethane, benzene, and naphthalene were detected above the initial screening levels in the living space indoor air but were below a health-

### REDACTED

Sample Number	Regional	239-0615-0096	239-0615-0094	239-0615-0095
Location	Screening	Unit 007	Unit 007	Unit 007
Sub Location	Level	cs	LR	LR CO
Matrix	Alr	Alr	Air	Air
Sample Date		6/10/2015	6/10/2015	6/10/2015
Analysis		VOC	VOC	VOC
Analyte	μg/m³	ha/w <sub>1</sub>	h&\w <sub>3</sub>	h8/m <sub>1</sub>
n-Heptane	NS	1.0	2.0	2.2
n-Hexane	7300	1.1	0.85	0.98
2-Propanol (Isopropyl Alcohol)	73000	9.2 U	6.6 U	7.9 U
m,p-Xylenes	1000	4.5	9.7	11
Dichloromethane (Methylene Chloride)	1000	0.92 U	0.65 U	0.79 U
Methyl tert-Butyl Ether	110	0.18 U	0.13 U	0.16 U
Naphthalene	0.83	6.3	1.3	1.5
o-Xylene	1000	1.4	2.6	3.0
Propene	31000	12	16	17
Styrene	10000	1.3	4.0	4.7
Tetrahydrofuran (THF)	21000	0.92 U	0.66 U	0.79 ป
Toluene	52000	18	17	20
trans-1,2-Dichloroethene	NS	0.18 U	0.13 U	0.16 U
trans-1,3-Dichloropropene	NS	0.92 U	0.66 บ	0.79 ป
Trichlorofluoromethane (CFC 11)	7300	7.7	15	17
Vinyl Acetate	2100	9.2 U	5.6 U	7.9 U
Analysis	Pixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	440	590	740
Methane	NS	1.4	15	14
Helium	N5	NA NA	NA	NA

VOC - volatile organic compounds

μg/m<sup>3</sup> - micrograms per cubic meter, ppmv - parts per million by volume,

U - not detected above specified reporting limit, J - estimated

N5 - not specified, NA-not analyzed

TABLE 2
June and July 2015 Air Sampling Results
Lee's Lane Landfill Site Investigation
November 2015

### REDACTED

Sample Number	Regional	239-0615-0096	239-0615-0094	239-0615-009
Location	Screening	Unit-007	Unit 007	Unit 007
Sub Locations	Level	CS .	LR	LR CO
Matrix	Air	Air	AJr.	Air
Sample Date:		6/10/2015	6/10/2015	5/10/2015
Analysis		VOE	VOG	VOC -
Analyte	μg/m³	ing/m	h <b>i</b> k/m³	μg/m³
Benzene	3.1	3.3	5.6	5.4
1,3-Butadiene	0.80	2.8	4.3	4.7
Carbon Tetrachloride	4.1	0.47	0.53	0.58
Chlorofarm	102	1.4	1.3	1.5
Dibromochloromethane	1.0	0.18 U	0.25	0.29
1,4-Dichlorobenzene	2.5	0.26	0.16	0.18
1,2-Dichloroethane	1.1	0.66	1.8	2.1
Ethylbenzene	11	1.7	4.0	4.6
Tetrachloroethene	42	0.29	0.13 U	0.16 U
Trichloroethene (TCE)	2.1	0.18 U	0.13 U	0.16 ป
Vinyl Chloride	1.6	0.18 U	0.13 U	0.16 U
1,1,1-Trichloroethane (TCA)	52000	0.18 U	0.13 U	0.16 U
1,1,2,2-Tetrachloroethane	0.48	0.18 U	0.13 U	0.16 U
1,1,2-Trichloroethane	1.8	0.18 U	0.13 U	0.16 U
1,1,2-Trichlorotrifluoroethane	310000	0.53	0.59	0.68
1,1-Dichloroethane (1,1-DCA)	18	0.18 U	0.13 U	0.16 U
1,1-Dichloroethene (1,1-DCE)	2100	0.18 U	0.13 U	0.16 U
1,2,3-Trichloropropane	3.1	0.92 UJ	0.66 UJ	0.79 UJ
1,2,4-Trimethylbenzene	73	0.92 U	1.5	1.7
1,2-Dibromoethane	0.047	0.18 U	0.13 ป	0.16 ป
1,2-Dichiorobenzene	2100	0.18 U	0.13 U	D.16 U
1,2-Dichloropropane	2.8	0.18 U	0.13 ປ	0.16 U
1,3,5-Trimethylbenzene	NS	0.92 U	0.66 ม	D.79 U
1,3-Dichlorobenzene	NS	0.18 U	0.13 U	0.16 U
1,4-Dioxane	5.6	0.92 U	0.66 ∪	0.79 ∪
2-Butanone (MEK)	52000	9.2 U	7.9	9.1
2-Hexanone	310	0.92 U	0.66 U	0.7 <b>9</b> U
4-Ethyltoluene	NS	0.92 U	0.66 U	0. <b>79</b> U
4-Methyl-2-pentanone	31000	0.92 บ	0.66 ป	0.79 U
Acetone	320000	27	66	74
Bromoform	26	0.92 U	0.66 ป	0.79 U
Bromomethane	52	0.37 U	0.26 U	0.32 U
Chlorobenzene	520	0.18 U	0.13 U	D. <b>16</b> U
Chloroethane	100000	0.37 U	0.26 U	0.32 U
Chloromethane	940	2.1	3.6	3.0
cis-1,2-Dichloroethene	NS	0.18 U	0.13 U	0.16 U
cis-1,3-Dichloropropene	NS	0.92 U	0.66 ป	0.7 <del>9</del> U
Cyclohexane	63000	18∪	1.3 U	1.6 U
Dichlorodifluoromethane (CFC 12)	1000	2.0	2.2	2.5
Ethyl Acetate	730	5.0	16	18
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.92 U	0.66 ม	0.79 U

Sample Number Location Sub Location Matrix Sample Date Analysis Analyte	Regional Screening Leve? Air	239-0615-0097 Unit 007 AMB Air 6/10/2015 VOC  µg/m³	239-0715-0082 Unit 007 Ambient Air 7/25/2015 VOC µg/m³	239-0715-0083 Unit 007 Ambient CO. Air. 7/25/2015 VOC. µg/m³
	μg/m³	A STATE OF THE PARTY OF THE PAR		
n-Heptane n-Hexane	NS 7700	0.85 U 0.85 U	0.87 U 1.3	2.2 1.4
	7300	1	8.7 U	12
2-Propanol (Isopropyl Alcohol)	73000	8.5 U	2	4.3
m,p·Xylenes	1000	2.7	1.4	4.a 0.76 U
Dichloromethane (Methylene Chloride)	1000	0.85 U	0.87 U	
Methyl tert-Butyl Ether	110	0.17 U	0.17 U	0.15 U
Naphthalene	0.83	2.3	0.87 U	2.1
o-Xylene	1000	1.3	0.87 U	1.8
Ргореле	31000	1.1	1.3	8.5
Styrene	10000	0.85 U	0.87 ป	0.76 U
Tetrahydrofuran (THF)	21000	0.85 U	0.87 U	0.76 ป
loluene	52000	7.70	5.1	16
trans-1,2-Dichloroethene	NS	0.17 U	0.17 U	0.15 U
trans-1,3-Dichloropropene	NS	0.85 U	0.87 U	0.76 ป
Trichlorofluoromethane (CFC 11)	7300	1.60	1.1	1.2
Vinyl Acetate	2100	8.5 U	8.7 U	7.6 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	550	0.17 U	0.15 U
Methane	NS	2.9	0.17 U	0.15 U
Helium	N5	NA NA	43 U	38 U

VOC · volatile organic compounds

µg/m³ - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U not detected above specified reporting limit, I - estimated

NS - not specified, NA-not analyzed



Sample Number Location Sub Locations Matrix Sample Date	Regional Screening Level Air	239:0615-0097 Unit 007 AMB Als 6/10/2015	Unit 007 Ambjent Alr 7/25/2015	239:0715-0083 Unit 907 Ambient CO Air :7/25/2015
Analysis		voc	VOC	VOC
Analyte	μg/m³	h8/W <sub>3</sub>	he/w.	h8/m³
Benzene	3.1	0.57	0.45 U	0.46 U
1,3-Butadiene	0.80	0.34 U	0.35 U	0.32
Carbon Tetrachloride	4.1	0.54	0.45	0.45
Chloroform	102	0.43	0.26	0.27
Oibromochloromethane	1.0	0.17 U	0.17 U	0.15 U
1,4-Dichlorobenzene	2.5	0.17 U	0.17 U	0.15 U
1,2-Dichloroethane	1.1	0.17 U	0.17 U	0.15 U
Ethylbenzene	11	0.85 U	0.87 U	0.94
Tetrachloroethene	42	0.17 U	0.19	0.23
Trichloroethene (TCE)	2.1	0.17 U	0.17 U	0.15 U
Vinyl Chloride	1.6	0.17 U	0.17 U	0.15 U
1,1,1-Trichloroethane (TCA)	52000	0.17 U	0.17 U	0.15 U
1,1,2,2-Tetrachloroethane	0.48	0.17 U	0.17 U	0.15 U
1,1,2-Trichloroethane	1.8	0.17 U	0.17 U	0.15 U
1,1,2-Trichlorotrifluoroethane	310000	0.62	0.52	0.51
1,1-Dichloroethane (1,1-DCA)	18	0.17 U	0.17 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.17 U	0.17 U	0.15 U
1,2,3-Trichloropropane	3.1	0.85 UJ	0.87 UJ	0.76 UJ
1,2,4-Trimethylbenzene	73	1.50	0.87 U	3.0
1,2-Dibromoethane	0.047	0.17 U	0.17 U	0.15 U
1,2-Dichlorobenzene	2100	0.17 U	0.17 U	0.15 U
1,2-Dichloropropane	2.8	0.17 U	0.17 U	0.15 U
1,3,5-Trimethylbenzene	NS	0.85 U	0.87 U	0.76
1,3-Dichlorobenzene	NS	0.17 U	0.17 U	0.15 U
1.4-Dioxane	5.6	0.85 U	0.87 U	0.76 U
2-Butanone (MEK)	52000	8.5 U	8.7 U	7.6 U
2-Hexanone	310	0.85 U	0.87 U	0.76 U
4-Ethyltoluene	NS	0.85 U	0.87 U	0.76 U
4-Methyl-2-pentanone	31000	0.85 U	0.87 U	2.0
Acetone	320000	19.00	12	19
Bromoform	26	0.85 U	0.87 U	0.76 U
Bromomethane	52	0.34 U	0.27 U	0.15 U
Chlorobenzene		i i	0.17 U	0.15 U
Chloroethane	520 100000	0.17 U	0.17 U	0.15 U
Chloromethane		0.34 U	0.17 U	0.30 U
	940 NC	0.34 U	0.33 U 0.17 U	0.15 U
cis-1,2-Dichloroethene	NS	0.17 U	l .	0.15 U
cis-1,3-Dichloropropene	NS CZCCC	0.85 U	0.87 U	1.5 U
Cyclohexane	63000	1.70	1.7 U	2.4
Dichlorodifluoromethane (CFC 12)	1000	2.9	2.4	4.9
Ethyl Acetate	730	6.2	2.0 0.87 U	0.76 U

### Exemption 6 Personal Privacy

#### TABLE 2 June and July 2015 Air Sampling Results REDACTED Lee's Lane Landfill Site Investigation November 2015

, 		· ·	
Sample:Number Location Sub Location Matrix Sample: Date	Regional Screening Level Soil Gas	239-0615-0105 Unit 007 SG Soll Gas 6/10/2015	239-0715-0081 Unit 007 SG Soil Gas 7/24/2015
Analysis Analyte	μg/m³	VOC µg/m³	VO€ μg/m³
Cyclohexane	630000	13	1.6 U
Dichlorodifluoromethane (CFC 12)	10000	1.3	2.4
Ethyl Acetate	7300	1.6 U	1.8
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.82 U	0.79 U
n-Heptane	NS	22	0.79 U
n-Hexane	73000	34	3.5
2-Propanol (Isopropyl Alcohol)	730000	8.2 U	7.9 U
m,p-Xylenes	10000	28	1.7
Dichloromethane (Methylene Chloride)	10000	2.9	0.79 U
Methyl tert-Butyl Ether	1100	0.16 U	0.16 U
Naphthalene	8.3	1.5	0.79 U
o-Xylene	10000	11	0.79 U
Propene	310000	73	6.1
Styrene	100000	0.82 U	0.79 V
Tetrahydrofuran (THF)	210000	0.82 U	0.79 บ
Toluene	520000	52	5.4
trans-1,2-Dichloroethene	NS	0.16 U	0.16 U
trans-1,3-Dichloropropene	NS	0.82 U	0.79 U
Trichlorofluoromethane (CFC 11)	73000	1.9	1.1
Vinyl Acetate	21000	8.2 บ	8.0
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	20000	0.16 U
Methane	NS ·	7. <b>9</b> U	0.16 U
Helium	NS	390000	53

VOC - volatile organic compounds

μg/m<sup>3</sup> - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed

November 2015

Sample Number	Regional	239-0615-0105	239-0715-0081
location	Screening	Unit 007	Unit 007
Sub Location	Level	SG	SG
Matrix	Soil Gas	Soil Gas	Soil Gas
Sample Date		6/10/2015	7/24/2015
Analysis		. VOC	VOC
Analyte	µg/m³	HE/m³	µg/m³
Benzene	31	11	0.51 U
1,3-Butadiene	8.0	5.9	0.32 U
Carbon Tetrachloride	41	0.37	0.45
Chloroform	1020	0.76	0.21
Dibromochloromethane	10	0.16 U	0. <b>16</b> U
1,4-Dichlorobenzene	25	0.16 U	0.16 U
1,2-Dichloroethane	11	0.16 U	0.16 U
Ethylbenzene	110	8.90	0.79 U
Tetrachloroethene	420	1.60	0.16 U
Trichloroethene (TCE)	21	0.33	0.16 U
Vinyl Chloride	16	0.16 U	0.16 U
1,1,1-Trichloroethane (TCA)	520000	0.16 U	0.16 U
1,1,2,2-Tetrachloroethane	4.8	0.16 U	0.16 U
1,1,2-Trichloroethane	18	0.16 U	0.16 U
1,1,2-Trichlorotrifluoroethane	3100000	0.40	0.50
1,1-Dichloroethane (1,1-DCA)	180	0.16 U	0.16 U
1,1-Dichloroethene (1,1-DCE)	21000	0.16 U	0.16 U
1,2,3-Trichloropropane	31	0.82 UJ	0.79 UJ
1,2,4-Trimethylbenzene	730	11.00	0.94
1,2-Dibromoethane	0.47	0.16 U	0.16 U
1,2-Dichlorobenzene	21000	0.16 U	0.16 U
1,2-Dichloropropane	28	0.16 U	0.16 U
1,3,5-Trimethylbenzene	NS	4.30	0.79 U
1,3-Dichlorobenzene	NS	0.16 U	0.16 U
1,4-Dioxane	56	0.82 U	0.79 U
2-Butanone (MEK)	520000	8.2 U	7.9 U
2-Hexanone	3100	0.82 U	0.79 U
4-Ethyltoluene	NS	3.00	0.79 U
4-Methyl-2-pentanone	310000	0.82 U	0.79 U
Acetone	3200000	20.00	23
Bromoform	260	0.82 U	0.79 U
Bromomethane	520	0.33 U	0.16 U
Chlorobenzene	5200	0.16 U	0.16 U
Chloroethane	1000000	0.33 U	0.16 U
Chloromethane	9400	0.33 U	0.33
cis-1,2-Dichloroethene	NS	0.16 U	0.16 ປ
cis-1,3-Dichloropropene	NS	0.82 U	0.79 U

based risk management level. Neither naphthalene, benzene, nor 1,2-dichlorethane were detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air and crawl space. These constituents are frequently found in cleaning products and mothballs. 1,3-butadiene can also be found in cigarette smoke.

Compound	Soil Gas Sampling Results	Soll Gas Vapor Intrusion Screening Level	Indoor Air (First Floor) Results	Indoor Air (Crawi Space) Results	Indoor Air (First Floor) Results	Indoor Air (First Floor) Results Duplicate	Ambient Air Results	Air Vapor Intrusion Screening Level
	Dec 2014		Nov 2014		Jun	e 2015		
1,3-Butadiene	23	8.0	6.7	2.8	4.3	4.7		0.81
1,2- Dichloroethane			1.6		1.8	2.1		1.1
Benzene			6.3	3.3	5.6	6.4		<b>3.</b> 1
Naphthalene				6.3	1.3	1.5	2.3	.83

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor Intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at http://www.epa.gov/oswer/vaporintrusion/basic.html.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or <a href="mailto:seadler.donna@epa.gov">seadler.donna@epa.gov</a>. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or <a href="mailto:miller.angela@epa.gov">miller.angela@epa.gov</a>.

Donna K. Seadler

Remedial Project Manager

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 4** ATLANTA FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960

December 16, 2015

REDACTED

Exemption 7 (1) Interference was Enforcement Proceedings

(d) Hight to Fair and (C) Unwanted invasion of Personal Privacy

Exemption 6 Personal Productions

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) crawl space air, two (2) indoor air, one (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of six (6) samples in June 2015. Due to potential concerns about data quality, a second soil gas sample was collected in July 2015 for comparison. Two (2) ambient air samples were taken at that time, also. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Four (4) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,2-dichloroethane, benzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas and indoor air but were below a health-based risk management level. 1,2-dichloroethane, benzene, and naphthalene were detected above the initial screening levels in the living space indoor air but were below a health-

### Exemption 6 Personal Privacy

### REDACTED

Sample Number	Regional	239-0615-0090	239-0615-0091	
Location	Screening	Unit 033	Unit 033	
Sub Location :	Level	CS	es co	
Matrix	Air	Air	Air	
Sample Date		6/10/2015	6/10/2015	
Analysis		voc	_voc	
Analyte	μg/m³	μg/m³	μg/m³	
n-Heptane	NS	0.82 U	0.75 U	
n-Hexane	7300	0.86	0.94	
2-Propanol (Isopropyl Alcohol)	73000	8.2 U	7.5 U	
m,p-Xylenes	1000	1.1	1.1	
Dichloromethane (Methylene Chloride)	1000	0.82 U	0.75 U	
Methyl tert-Butyl Ether	110	0.16 U	0.1 <b>5</b> U	
Naphthalene	0.83	0.82 U	0.75 U	
o-Xylene	1000	0.82 U	0.75 U	
Propene	31000	0.90	0.92	
Styrene	10000	1.0	1.0	
Tetrahydrofuran (THF)	21000	0.82 U	0.75 U	
Toluene	52000	2.7	2.5	
trans-1,2-Dichloroethene	N5	0.16 U	0.15 U	
trans-1,3-Dichloropropene	NS	0.82 U	0.75 U	
Trichlorofluoromethane (CFC 11)	7300	1.7	1.7	
Vinyl Acetate	2100	8.2 U	7.5 U	
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	
Carbon Dioxide	NS	680	730	
Methane	NS	14	15	
Helium	NS	NA NA	NA	

VOC - volatile organic compounds

μg/m³ - micrograms per cubic meter, ppmv - parts per million by volume, % -

U - not detected above specified reporting limit, I - estimated

NS - not specified, NA-not analyzed

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#### Exemption 6 Personal Privacy

Sample Number Location	Regional Screening	239-0615-0090 Unit 033	239-0615-0091 Unit 033
Sub-Location	Level	CS	GS CO
Matrix	: Cever	Air	Air
Sample Date:	All		
Analysis		6/10/2015	6/10/2015
Analyte.		HB/m³	H8/W
Senzene	ha/w <sub>3</sub>	0.90	THE RESERVE OF THE PARTY OF THE
1.3-Butadiene	3.1 0.80	0.33 U	0.56 0.30 U
Carbon Tetrachloride	4.1	0.33 0	0.30 0
Chloroform	102	0.64	0.49
Dibromochloromethane	102	0.16 U	0.15 U
1,4-Dichlorobenzene	2.5	5.2	5.3
1.2-Dichloroethane	1.1	0.68	0.68
Ethylbenzene	11	0.82 U	0.75 U
Tetrachloroethene	42	0.16 U	0.75 U
Trichloroethene (TCE)	2.1	0.16 U	0.15 U
Vinyl Chloride	1.6	0.15 U	0.15 U
1,1,1-Trichloroethane (TCA)	52000	0.15 U	0.15 U
1.1,2,2-Tetrachioroethane	0.48	0.16 U	0.15 U
1,1,2-Trichloroethane	1.8	0.16 U	0.15 U
1,1,2-Trichlorotrifluoroethane	310000	0.16 0	0.15 0
1,1-Dichloroethane (1,1-DCA)	18	0.16 U	0.55 0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.16 U	0.15 U
1,2,3-Trichloropropane	3.1	0.82 UJ	0.75 UJ
1,2,4-Trimethylbenzene	73	2.2	2.3
1,2-Dibromoethane	0.047	0.15 U	0.15 U
1,2-Dichlorobenzene	2100	0.16 U	0.15 U
1,2-Dichloropropane	2.8	0.16 U	0.15 U
1,3,5-Trimethylbenzene	NS	0.82 U	0.75
1,3-Dichlorobenzene	NS	0.16 U	0.15 U
1,4-Dioxane	5.6	0.82 U	0.75 U
2-Butanone (MEK)	52000	8.2 U	7.5 U
2-Hexanone	310	0.82 U	0.75 U
4-Ethyltoluene	NS	0.82 U	0.75 U
4-Methyl-2-pentanone	31000	0.82 U	0.75 U
Acetone	320000	17	25
Bromoform	26	0.82 U	0.75 U
Bromomethane	52	0.33 U	0.30 U
Chlorobenzene	520	0.16 U	0.15 U
Chloroethane	100000	0.33 U	0.3 U
Chloromethane	940	0.46	0.49
cis-1, <b>2-</b> Di <b>c</b> hloroethene	NS	0.16 U	0.15 U
cis-1,3-Dichloropropene	NS	0.82 U	0.75 U
Cyclohexane	63000	1.6 U	1.5 U
Dichlorodifluoromethane (CFC 12)	1000	2.1	2.1
Ethyl Acetate	730	4.2	3.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.82 U	0.75 U

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### REDACTED

Sample Number Location Sub Location Matrix Sample Date Analysis	Regional Screening Level Air	239-0615-0092 Unit 033 AMB Alr 6/10/2015 VOC	239-0615-0093 Unit 033 LR Air 6/10/2015 VOC
Analyte	μg/m³	μg/m³	μg/m <sup>)</sup>
n-Heptane	NS	0.82 ป	0.74 U
n-Hexane	7300	0.82 U	1.2
2-Propanoi (isopropyl Alcohol)	73000	8.2 U	7.4 U
m,p-Xylenes	1000	1.1	1.4
Dichloromethane (Methylene Chloride)	1000	0.82 U	0.74 U
Methyl tert-Butyl Ether	110	0.16 U	0.15 U
Naphthalene	0.83	0.98	0.74 U
o-Xylene	1000	0.82 U	0.78
Propene	31000	1.3	1.3
Styrene	10000	0.82 U	1.4
Tetrahydrofuran (THF)	21000	0.82 U	0.74 U
Toluene	52000	4.9	2.9
trans-1,2-Dichloroethene	NS	0.16 U	0.15 U
trans-1,3-Dichloropropene	N5	0.82 U	0.74 U
Trichlorofluoromethane (CFC 11)	7300	1.3	2.0
Vinyl Acetate	2100	8.2 U	744
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	270	550
Methane	NS	12	14
Helium	NS	NA.	NA NA

VOC - volatile organic compounds

µg/m3 - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U not detected above specified reporting limit, J estimated

NS - not specified, NA-not analyzed

Exemption o reisonal rrivacy

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ample Number ocation	Regional Screening	239-0615-0092 Unit 033	239-0615-0098 Unit Q33>
iub Location	Level	AMB.	LR.
Vatrix	Air	Air	Air
ample Date		6/10/2015	6/10/2015
Analysis		VOC.	VOC
Analyte	μ <b>ε/</b> m³	- ha/w	µg/m
Benzene	3.1	0.53	0.63
1,3-Butadiene	08.0	0.33 U	0.29 U
Carbon Tetrachloride	4.1	0.47	0 47
Chloroform	102	0.17	0.75
Dibromochloromethane	1	0.16 U	0.15 U
1,4-Dichlorobenzene	2.5	0.16 U	7.2
1,2-Oichtoroethane	1.1	0.16 U	1.1
Ethylbenzene	<b>1</b> 1	0.82 U	0 74 U
Tetrachloroethene	42	0.15 U	0.15 U
Trichloroethene (TCE)	2.1	0.16 U	0.15 U
vinyl Chloride	16	0.16 U	0.15 U
1,1,1-Trichloroethane (TCA)	52000	0.16 U	0 15 U
1,1,2,2-Tetrachloroethane	0.48	0.16 U	0.15 U
1,1,2-Trichloroethane	1.8	0.16 U	0.15 U
1,1,2-Trichlorotrifluoroethane	310000	0.55	0.56
I,1-Dichloroethane (1,1-DCA)	18	0.16 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.16 U	0.15 U
1,2,3-Trichloropropane	3.1	G.82 UJ	0.74 UJ
1,2,4-Trimethylbenzene	73	0.82 U	3.2
1,2-Dibromoethane	0.047	0.15 U	0.15 ປ
1,2-Dichlorobenzene	2100	0.16 U	0.15 U
1,2-Dichloropropane	2.8	0.15 U	0.15 U
1,3,5-Trimethylbenzene	NS	0.82 U	1.0
1,3-Dichlorobenzene	NS	0.16 U	0.15 U
1,4-Dioxane	5.6	0.82 U	0.74 U
2-Butanone (MEK) 2-Hexanone	52000	8.2 U	7.4 U
4	310	0.82 U	0.74 U
4-Ethyltoluene	NS	0.82 U	0.74 U
4-Methyl-2-pentanone Acetone	31000	0.82 U	0.74 U
Bromoform	320000	9.6	36
Bromotorm :	26	0.82 U	0.74 U
Chlorobenzene	52	0.33 U	0.29 U
3	520	0.16 U	0.15 U
Chloroethane	100000	0.33 U	0.29 U
Chloromethane	940	0.51	ر 0.62
cis-1,2-Dichloroethene	N5	0.16 U	0.15 U
cis-1,3-Olchioropropene	NS	0.82 U	0.74 U
Cyclohexane	63000	1.6 U	1.5 U
Dichlorodifluoromethane (CFC 12) Ethyl Acetate	1000	2.1	2.1
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	730 NS	3.1 0.82 U	7.2 0.74 U



November 2015

Sample Number	Regional	239-0615-0110
Location	Screening	Unit 033
Sub Location	Level	SG
Matrix	Soil Gas	Soil Gas
Sample Date	ŀ	6/10/2015
Analysis	<b>.</b>	voc
Analyte	μg/m³	μg/m³
Cyclohexane	630000	12
Dichlorodifluoromethane (CFC 12)	10000	1.3
Ethyl Acetate	7300	1.4 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.69 U
n-Heptane	NS	32
n-Hexane	73000	53
2-Propanol (isopropyl Alcohol)	730000	6.9 U
m,p-Xylenes	10000	41
Dichloromethane (Methylene Chloride)	10000	1.5
Methyl tert-Butyl Ether	1100	0.14 U
Naphthalene	8.3	1.4
o-Xyłene	10000	15
Propene	310000	430
Styrene	100000	0.76
Tetrahydrofuran (THF)	210000	0.69 U
Toluene	520000	- 58
trans-1,2-Dichloroethene	NS	0.14 U
trans-1,3-Dichloropropene	NS	0.69 U
Trichlorofluoromethane (CFC 11)	73000	0.89
Vinyl Acetate	21000	6.9 U
Analysis	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	2000
Methane	NS	5.9
Helium	NS	270000

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed



Sample Number Location	Regional Screening	239-0615-0110 Unit 033
Subillocation	Level	SG
Matrix	Soll Gas	Soll Gas
Sample Date		6/10/2015
Analysis		VOC -
Analyte 1984	µg/m³	µg/m³
Benzene	31	9.2
1,3-Butadiene	8:0	11
Carbon Tetrachloride	41	0.51
Chloroform	1020	1.7
Dibromochloromethane	10	0.14 U
1,4-Dichlorobenzene	25	0.35
1,2-Dichloroethane	11	0.14 U
Ethylbenzene	110	12
Tetrachloroethene	420	1.8
Trichloroethene (TCE)	21	0.14
Vinyl Chloride	16	0.14 U
1,1,1-Trichloroethane (TCA)	520000	0.14
1,1,2,2-Tetrachloroethane	4.8	0.14 U
1,1,2-Trichloroethane	18	0.14 U
1,1,2-Trichlorotrifluoroethane	3100000	0.31
1,1-Dichloroethane (1,1-DCA)	180	0.14 U
1,1-Dichloroethene (1,1-DCE)	21000	0.14 U
1,2,3-Trichloropropane	31	נט 69.0
1,2,4-Trimethylbenzene	730	20
1,2-Dibromoethane	0.47	0.14 U
1,2-Dichlorobenzene	21000	0.14 U
1,2-Dichloropropane	28	0.14 U
1,3,5-Trimethylbenzene	NS	6.9
1,3-Dichlorobenzene	NS	0.14 U
1,4-Dioxane	56	0.69 U
2-Butanone (MEK)	520000	6.9 U
2-Hexanone	3100	0.69 ∪
4-Ethyltoluene	NS.	5.7
4-Methyl-2-pentanone	310000	0.69 U
Acetone	3200000	11
Bromoform	260	0.69 U
Bromomethane	520	0.28 U
Chlorobenzene	5200	0.14 U
Chloroethane	1000000	0.28 U
Chloromethane	9400	0.28 U
cis-1,2-Dichloroethene	NS.	0.14 U
cis-1,3-Dichloropropene	NS:	0.69 U
ria-1,3-Diction obtobetie	140	0.030

screening levels in the crawl space and living space indoor air but were below a health-based risk management level. 1,4-dichlorobenzene was not detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air and crawl space. 1,4-dichlorobenzene is commonly found in cleaning products and mothballs. Naphthalene was detected above initial screening levels in the ambient air but was below health-based risk management levels.

Compound	Sam	Gas pling suits	Soll Gas Vapor Intrusion Screening Level	Indoor Air (Crawl Space) Results	indoor Air (Crawl Space) Results Duplicate	indoor Air (First Floor) Results	Ambient Air Results	Air Vapor Intrusion Screening Level
	Dec. 2014	June 2015			June	2015		
1,3-Butadiene	28	11	8.0					0.81
1,4- Dichlorobenzene				5.2	5.3	7.2		2.5
Naphthalene	i !						.98	.83

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor Intrusion Screening Levels are shown on this table.

For more information regarding risk assessment, please see EPA's website at http://epa.gov/riskassessment/basicinformation.htm#risk.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at http://www.epa.gov/oswer/vaporintrusion/basic.html.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna@epa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela@epa.gov.

Donna K. Seadler

Remedial Project Manager

Enclosure



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960



Exemption 7(A) Interference with Enforcement-Sens Beings, 2	2015
(6) Fig to a Fair Trial	_
(C) Unwanted Invasion of Personal Privacy	Exemption 8 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

#### Dear Current Resident:

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) indoor air, two (2) crawl space, (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of five (5) samples in June 2015. Due to potential concerns about data quality, EPA attempted a second soil gas sample in July 2015 for comparison. Unusually wet conditions prevented a second soil gas sample from being successfully collected at that time. However, comparisons of the June and July 2015 soil gas results on those homes where it was successful indicate that the June 2015 data is satisfactory. The indoor air and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Three (3) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,4-dichlorobenzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas but there were no exceedances in the crawl space or living space indoor air. 1,4-dichlorobenzene was detected above the initial

#### Exemption 6 Personal Privacy

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1			
Sample Number	Regional	239-0615-0090	239-0615-0091
Location	Screening	Unit 033	Unit 033
Sub Location	Level	cs	GS CO
Matrix	Air	Air	Air
Sample Date		6/10/2015	6/10/2015
Analysis		VOC	VOC
Analyte	μg/m³	hft/un,	μg/m
n-Heptane	NS	0 82 U	0.75 U
n-Hexane	7300	0.86	0.94
2-Propanol (Isopropyl Alcohol)	73000	8.2 U	7 S U
m,p-Xylenes	1000	1.1	1.1
Dichloromethane (Methylene Chloride)	1000	0.82 U	0.75 U
Methyl tert-Butyl Ether	110	0.16 U	0.15 U
Naphthalene	0.83	0.82 U	0 75 U
o Xylene	1000	0.82 U	0 75 U
Propene	31000	0 90	0 92
Styrene	10000	1.0	1.0
Tetrahydrofuran (THF)	21000	D.82 U	0 75 U
Toluene	52000	2.7	2.5
trans-1,2-Dichloroethene	NS	0.16 U	0.15 U
trans-1,3-Dichloropropene	NS	0.82 U	0.75 U
Trichlorofluoromethane (CFC 11)	7300	17	17
Vinyl Acetate	2100	8 2 U	7.5 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	680	730
Methane	NS	14	15
Helium	N5	NA	NA

VOC - volatile organic compounds

μg/m<sup>3</sup> - micrograms per cubic meter, ppmv - parts per million by volume, %

NS not specified, NA-not analyzed

U not detected above specified reporting limit, riestimated

### REDACTED

### Exemption 6 Personal Privacy

Sample Number Location Sub Location Matrix Sample Date Analysis	Regiona) Screening Level Air	239(06)5-0090: Unite033 CS Air 6/10/2015 VQC	239(0615,0091) Unim035; GS-(GO) Ala 6/(AD)/2015 V/(SG)
Analyte	ha/w <sub>3</sub>	i jug/m	hr/w
Benzene	3.1	0.90	0.56
1,3-Butadiene	0.80	0,33 U	0.30 U
Carbon Tetrachloride	4.1	0.48	0.49
Chloroform	102	0.64	0.67
Dibromochloromethane	1	0.16 U	0.15 U
1,4-Dichlorobenzene	2.5	5.2	5.3
1,2-Dichloroethane	1.1	0.68	0 68
Ethylbenzene	11	0.82 บ	0.75 U
Tetrachloroethene	42	0.16 U	0.15 U
Trichloroethene (TCE)	2.1	0.16 U	0.15 U
Vinyl Chloride	1.6	0.16 U	0.15 U
1,1,1-Trichloroethane (TCA)	52000	0.16 U	0 15 U
1,1,2,2-Tetrachloroethane	0.48	0.16 U	0 15 U
1,1,2-Trichloroethane	1.8	0.16 U	0 15 U
1,1,2-Trichlorotrifluoroethane	310000	0.56	0.55
1,1-Dichloroethane (1,1-DCA)	18	0.16 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.16 U	0.15 U
1,2,3-Trichloropropane	3.1	עט 0.82	0.75 UJ
1,2,4-Trimethylbenzene	73	2.2	2.3
1,2-Dibromoethane	0.047	0.16 U	0.15 ป
1,2-Dichlorobenzene	2100	0.16 U	0.15 U
1,2-Dichloropropane	2.8	0 16 U	0.15 U
1,3,5-Trimethylbenzene	NS	0 82 U	0.75
1,3-Dichlorobenzene	NS	0.16 U	0.15 U
1,4-Dioxane	5.6	0820	0.75 U
2-Butanone (MEK)	52000	820	7.5 U
2-Hexanone	310	0.82 U	0.75 U
4-Ethyltoluene	NS	0.82 U	0.75 U
4-Methyl-2-pentanone	31000	0,82 U	0.75 U
Acetone	320000	17	25
Bromaform	26	0.82 U	Q.75 U
Bromomethane	52	0.33 U	0.30 U
Chlorobenzene	520	0.16 U	0.15 U
Chloroethane	100000	0.33 U	0.3 U
Chloromethane	940	0.46	0.49
cis-1,2-Dichloroethene	NS	0.16 U	0.1S U
cis-1,3-Dichloropropene	N5	0.82 U	0.75 U
Cyclohexane	63000	1.6 U	1.5 U
Dichlorodifluoromethane (CFC 12)	1000	2.1	2.1
Ethyl Acetate	730	4.2	3.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.82 U	0.75 U

### Exemption & Personal Privacy



Sample Number	Regional	239-0515-0092	239-0615-0093
Location	Screening	Unit 033	Unite033
Sub Location	Level	AMB	LR
Matrix,	Air	Alr	Air
Sample Date	7	6/10/2015	6/10/2015
Analysis		VOC	VOE
Analyte	ug/m³	μg/m³	μg/m³
n-Heptane	NS	0.82 U	0.74 U
n-Hexane	7300	0 82 U	12
2-Propanol (Isopropyl Alcohol)	73000	8 2 U	744
m,p-Xylenes	1000	1.1	14
D chloromethane (Methylene Chloride)	1000	0.82 U	074 U
Methyl tert-Butyl Ether	110	0.16 U	0 15 U
Naphthalene	0.83	0.98	0.74 U
o Xylene	1000	0.82 U	0.78
Propene	31000	13	13
Styrene	10000	0 82 U	14
Tetrahydrofuran (THF)	21000	0 82 U	0.74 U
Yaluene	52000	4.9	2 9
trans-1,2-Dichloroethene	NS	0 16 U	0.15 U
trans-1,3-Dichloropropene	NS	0 82 U	0 74 U
Trichlorofluoromethane (CFC 11)	7300	13	2.0
Vinyl Acetate	2100	8 2 U	74 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	270	550
Methane	NS	1.2	14
Helium	NS	NA	NA

VOC volatile organic compounds

μg/m<sup>3</sup> micrograms per cubic meter, ppmv · parts per million by volume, % · percent

U not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed

Exemption 6 Personal Privacy

### REDACTED

Sample Number	Regional	239,0615-0092	289-0615-0093
ocation.	Screening	Unit 033	Unito033
Sub Location 1915	Level	AMB	LR
маиж	Alr	Air	Ala
Sample Date:		6/10/2015	6/10/2015
Analysis		.voc	a za VOE, a w
Analyte	h&\w <sub>3</sub>	HB/m	er/m
Benzene	3.1	0.53	0.63
1,3-Butadiene	0.80	0.33 U	0.29 U
Carbon Tetrachloride	4.1	0.47	0.47
Chloroform	102	0.37	0.75
Dibromochloromethane	1	0.16 U	0.15 U
1,4-Dichlorobenzene	2.5	0.16 U	7.2
1,2-Dichloroethane	1.1	0.15 U	11
Ethylbenzene	11	0.82 U	0.74 U
Tetrachloroethene	42	0 16 U	0.15 U
Trichloroethene (TCE)	2.1	0.16 U	0.15 U
Vinyl Chloride	1.6	0.16 U	0.15 U
1,1,1-Trichloroethane (TCA)	52000	0.16 U	0.15 ป
1,1,2,2-Tetrachioroethane	0.48	0.16 U	0.15 U
1,1,2-Trichloroethane	1.8	0.15 U	0.15 U
1,1,2-Trichlorotrifluoroethane	310000	0.55	0.56
1,1-Dichloroethane (1,1-DCA)	18	0.16 U	0.15 U
1,1-Dichloroethene (1,1-DCE)	2100	0.15 U	0.15 ប
1,2,3-Trichloropropane	3.1	0.82 UJ	0.74 นา
1,2,4-Trimethylbenzene	73	0.82 U	3.2
1,2-Dibromoethane	0.047	0.16 U	0.15 U
1,2-Dichlorobenzene	2100	0.16 U	0.15 ป
1,2-Oichloropropane	2.8	0.16 U	0.15 U
1,3,5-Trimethylbenzene	NS	0.82 U	1.0
1,3-Dichlorobenzene	NS	0.16 U	0.15 U
1,4-Dioxane	5.6	0.82 U	0.74 U
2-Butanone (MEK)	52000	8.2 U	7.4 U
2-Hexanone	310	0.82 U	0.74 U
4-Ethyltoluene	NS	D 82 U	0.74 U
4-Methyl-2-pentanone	31000	0.82 U	0.74 U
Acetone	320000	9.6	36
Bromoform .	26	0.82 U	0.74 U
Bromomethane	52	0.33 U	0.29 U
Chlorobenzene	520	0.16 U	0.15 U
Chloroethane	100000	0.33 U	0.29 U
Chloromethane	940	0.51	0.62 J
cis-1,2-Dichloroethene	NS	0.16 U	0.15 U
cis-1,3-Dichloropropene	NS	0.82 U	0.74 U
Cyclohexane	63000	1.6 U	1.5 U
Dichlorodifluoromethane (CFC 12)	1000	2.1	2.1
Ethyl Acetate	730	3 1	7.2
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	N5	0.82 U	0.74 U



Sample Number	Regional	239-0615-0110
Location	Screening	Unit-033
Sub Location	Level	SG.
Matrix	Soil Gas	Soil Gas
Sample Date		6/10/2015
Analysis		YOC
Analyte	μg/m³	μg/m³
Cyclohexane	630000	12
Dichlorodifluoromethane (CFC 12)	10000	1.3
Ethyl Acetate	7300	1.4 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.69 U
n-Heptane	NS	32
n-Hexane	73000	53
2-Propanol (isopropyl Alcohol)	730000	6.9 U
m,p-Xylenes	10000	41
Dichloromethane (Methylene Chloride)	10000	1.5
Methyl tert-Butyl Ether	1100	0.14 U
Naphthalene	8.3	1.4
o-Xylene	10000	15
Propene	310000	430
Styrene	100000	0.76
Tetrahydrofuran (THF)	210000	0.69 U
Toluene	520000	58
trans-1,2-Dichloroethene	N5	0.14 U
trans-1,3-Dichloropropene	NS	0.69 U
Trichlorofluoromethane (CFC 11)	73000	0.89
Vinyl Acetate	21000	6.9 U
Analysis	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	2000
Methane	NS	5.9
Helium	NS	270000

VOC - volatile organic compounds

μg/m<sup>3</sup> - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed

TABLE 2

### REDACTED

Sample Number & All Logations	Regional Screening	239 <b>:</b> 0615;0140) Ufilt 033
Subilogation :	Level	SG.
Metrix	Soil Gas	Soil Gas
Sample Dare	40,11943	6/10/2015
Ana Visis 1		voc
Analytel	ha/w <sub>3</sub>	uz/m-
Benzene	31	9.2
1,3-Butadiene	8.0	11
Carbon Tetrachloride	41	0.51
Chloroform	1020	1.7
Dibromochloromethane	10	0.14 U
1,4-Dichlorobenzene	25	0.35
1,2-Dichloroethane	11	0.14 U
Ethylbenzene	110	12
Tetrachloroethene	420	1.8
Trichloroethene (TCE)	21	0.14
Vinyl Chloride	16	0.14 U
1,1,1-Trichloroethane (TCA)	520000	0.14
1,1,2,2-Tetrachloroethane	4.8	0.14 U
1,1,2-Trichloroethane	18	0.14 U
1,1,2-Trichlorotrifluoroethane	3100000	0.31
1,1-Dichloroethane (1,1-DCA)	180	0.14 U
1,1-Dichloroethene (1,1-DCE)	21000	0.14 U
1,2,3-Trichloropropane	31	0.69 UJ
1,2,4-Trimethylbenzene	730	20
1,2-Dibromoethane	0.47	0.14 U
1,2-Dichlorobenzene	21000	0.14 U
1,2-Dichloropropane	28	0.14 U
1,3,5-Trimethylbenzene	NS	6.9
1,3-Dichlorobenzene	NS	0.14 U
1,4-Dioxane	56	0.69 U
2-Butanone (MEK)	520000	6.9 U
2-Hexanone	3100	0.69 U
4-Ethyltoluene	NS.	5.7
4-Methyl-2-pentanone	310000	0.69 U
Acetone	3200000	11
Bromoform	260	0.69 U
Bromomethane	520	0.28 U
Chlorobenzene	5200	0.14 U
Chloroethane	1000000	0.28 U
Chloromethane	9400	0.28 U
cis-1,2-Dichloroethene	NS	0.14 U
cis-1,3-Dichloropropene	NŞ	0.69 U

management level. 1,4-dichlorobenzene was not detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air and crawl space. 1,4-dichlorobenzene is commonly found in cleaning products and mothballs. Naphthalene was detected above initial screening levels in the ambient air but was below health-based risk management levels.

Compound	Sam	Gas pling suits	Soil Gas Vapor Intrusion Screening Level	Indoor Air (Crawl Space) Results	Indoor Air (Crawl Space) Results Duplicate	indoor Air (First Floor) Results	Amblent Air Results	Air Vapor Intrusion Screening Level
	Dec. 2014	June 2015			June	2015		
1,3-Butadiene	28	11	8.0					0.81
1,4- Dichlorobenzene				5.2	5.3	7.2		2.5
Naphthalene							.98	.83

#### Notes:

- All results and screening levels are in ug/m<sup>3</sup> or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor Intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at http://www.epa.gov/oswer/vaporintrusion/basic.html.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna@epa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela@epa.gov.

Donna K. Seadler

Remedial Project Manager

Enclosure



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ATLANTA, GEORGIA 30303-8960

(A) Interference with Enfort Recember 16, 2015

Exemp\*

(C) Unwanted Invasion of Personal Privacy

Exemption & Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) indoor air, two (2) crawl space, (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of five (5) samples in June 2015. Due to potential concerns about data quality, EPA attempted a second soil gas sample in July 2015 for comparison. Unusually wet conditions prevented a second soil gas sample from being successfully collected at that time. However, comparisons of the June and July 2015 soil gas results on those homes where it was successful indicate that the June 2015 data is satisfactory. The indoor air and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Three (3) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,4-dichlorobenzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas but there were no exceedances in the crawl space or living space indoor air. 1,4-dichlorobenzene was detected above the initial screening levels in the crawl space and living space indoor air but were below a health-based risk

### Exemption o Personal Privacy

### REDACTED

Sample Number	Regional	239-0615-0084	239-0615-0086	239-0615-0085
Location	Screening	Unit 023	Unit 023	Unit 023
Sub Location	Level	AMB	CS CS	LR
Matrix	Air	Air	Alr	Air
Sample Date	1	6/10/2015	6/10/2015	6/10/2015
Analysis	1	VOC	VOC	VOC
Analyte	μg/m³	μg/m³	μg/m³	hB/w <sub>3</sub>
n-Heptane	NS	0.68	1.9 U	0.82 U
n-Hexane	7300	18	1.9 U	0.82 U
2-Propanol (Isopropyl Alcohol)	73000	9.6	33	23
m,p-Xylenes	1000	1.8	2.5	0.82 U
Dichloromethane (Methylene Chloride)	1000	0.66 U	1.9 U	0.82 U
Methyl tart-Butyl Ether	110	0.13 U	0.38 U	0.16 U
Naphthalene	0.83	0.66 U	6.5	0.82 U
o-Xylene	1000	0.66 U	1.9 U	0.82 U
Propene	31000	3.3	4.9	5.1
Styrene	10000	0.66 U	1.9 U	0.82 U
Tetrahydrofuran (THF)	21000	0.66 U	1.9 U	0.82 U
Toluene	52000	5.8	25	1.8
trans-1,2-Dichloroethene	N5	0.13 U	0.38 U	0.16 U
trans-1,3-Dichloropropene	NS	0.65 U	1.9 U	0.82 U
Trichlorofluoromethane (CFC 11)	7300	1.3	1.3	1.3
Vinyl Acetate	2100	6.6 U	19 U	8.2 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	450	570	660
Methane	N5	2.2	2.1	25
Helium	N5	NA NA	NA .	NA

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, I - estimated

NS - not specified, NA-not analyzed

REDACTED

Exemption 6 Personal Privacy

ample Number	Regional	239-0615-0084	239;0615:0086	239-0615-0085
ocation	Screening	Unit.023	Unit 023	1:Unit 023
iub Location	Level	AMB:	GS A	SeLR.
<b>Vatrix</b>	Air	Alf 🔠	Ain	Aire
ample Dates		6/10/2015	6/10/2015	6/10/2015
nalysis		VOC_ &	vec	VOC
inalyte.	μg/m³	ha/m	H\$/m	he/m,
Benzene	3.1	0.61	0 62	0.51
,3-Butadiene	0.8	0.26 U	0.7 <b>6 U</b>	0.33 U
Carbon Tetrachloride	4.1	0.48	0.42	0.54
Chloroform	102	0.18	0.92	0 53
Dibromochloromethane	1.0	0.13 U	0.38 U	Q.16 U
I,4-Dichlorobenzene	2.5	0.13 ป	3.9	310
1,2-Dichloroethane	1.1	0.2	1.0	1.6
Ethylbenzene	11	0.66 U	1.9 U	0.82 U
letrachloroethene	. 42	0.13 U	0.38 U	0.16 U
(richloroethene (TCE)	2.1	0.13 U	0.38 U	0,16 U
/inyl Chloride	1.6	0.13 U	0.38 U	0.16 U
1,1,1-Trichloroethane (TCA)	52000	0.13 U	0.38 U	0.16 U
1,1,2,2-Tetrachloroethane	0.48	0.13 U	0.38 U	0.16 U
1,1,2-Trichloroethane	1.8	0.13 U	0.38 U	0.16 U
1,1,2-Trichlorotrifluoroethane	310000	0.55	0.51	0.54
I,1-Dichloroethane (1,1-DCA)	18	0.13 U	0.38 U	0.16 U
I,1-Dichloroethene (1,1-DCE)	2100	0.13 U	0.38 U	0.16 U
1,2,3-Trichloropropane	3.1	0.56 UJ	1.9 UJ	0.82 ປາ
1,2,4-Trimethyfbenzene	73	0.68	1.9 U	0.82 U
1,2-Dibromoethane	0.047	0.13 ย	0.38 U	0.16 U
1,2-Dichtorobenzene	2100	0.13 U	0.38 U	0.16 U
1,2-Dichloropropane	2.8	0.13 ປ	0.38 U	0.16 U
1,3,5-Trimethylbenzene	N5	0.65 U	1.9 υ	0.82 U
1,3-Dichlorobenzene	NS	0.13 U	U 8E.O	0.16 U
1,4-Dioxane	5.6	0.66 U	1.9 U	0.82 U
2-Butanone (MEK)	52000	5.6 U	19 U	8.2 U
2-Hexanone	310	0.66 U	1.9 U	0.82 U
1-Ethyltoluene	NS	0.66 U	1.9 U	0.82 U
4-Methyl-2-pentanone	31000	0.66 U	1,9 U	0.82 U
Acetone	320000	12	19 U	19
Bromoform	26	0.66 U	1.9 U	0.82 U
Bromomethane	52	0.26 U	0.76 U	0.33 U
Chlorobenzene	520	0.13 U	0.38 U	0.16 U
Chloroethane	100000	0.26 U	0.76 U	0.33 U
Chloromethane	940	0.43	0.76 U	0.45
cis-1,2-Dichloroethene	NS	0.13 U	0.38 U	0.16 U
cis-1,3-Dichlorapropene	NS	0.66 U	1.9 U	0.82 U
Cyclohexane	63000	1.3 U	3.8 U	1.6 U
Dichlorodifluoromethane (CFC 12)	1000	2.1	1.9	2.1
Ethyl Acetate	730	5.3	l 18	2.6

#### Exemption 6 Personal Privacy

## REDACTED

Sample Number	Regional	239-0615-0107
Location	Screening	Unit 023
Sub Location	Level	SG
Matrix	50il Gas	Soll Gas
Sample Date		6/10/2015
Analysis	4	Voc
Analyte	μg/m³	μg/m³
Cyclohexane	630000	7.5
Dichlorodifluoromethane (CFC 12)	10000	1.9
Ethyl Acetate	7300	3.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.93 U
n-Heptane	NS	26
n-Hexane	73000	41
2-Propanol (Isopropyl Alcohol)	730000	9.3 υ
m,p-Xylenes	10000	41
Dichloromethane (Methylene Chloride)	10000	1.4
Methyl tert-Butyl Ether	1100	0.19 U
Naphthalene	8.3	2.3
o-Xylene	10000	14
Propene	310000	410
Styrene	100000	0.93 U
Tetrahydrofuran (THF)	210000	0.93 U
Toluene	520000	59
trans-1,2-Dichloroethene	NS	0.19 U
trans-1,3-Dichloropropene	NS	0.93 U
Trichlorofluoromethane (CFC 11)	73000	1.3
Vinyl Acetate	21000	9.3 U
Analysis	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	970
Methane	NS	3.7
Helium	NS	120000

VOC - volatile organic compounds

µg/m³ - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

 $<sup>\</sup>boldsymbol{U}+\boldsymbol{not}$  detected above specified reporting limit,  $\boldsymbol{J}$  - estimated

NS - not specified, NA-not analyzed

Exemption o riersonal Privacy

Sample Number Location	Regional Screening	239-0615-0107 Unit 023
SubiLocation	Level	<b>9</b> G
Matrix	Soil Gas	Soil Gas
Sample Date		6/10/2015
Analysis	ر ورخی وارواند کی در در وارد کرد. این محمد خواهد و این محمد خواهد و این محمد در این	VOC
Analyte	h <b>a</b> /w <sub>g</sub>	μ <u>g</u> /m³
Benzene	31	8,5
1,3-Butadiene	8.0	15
Carbon Tetrachloride	41	0 44
Chloroform	1020	8.2
Dibromochloromethane	10	0.19 U
1,4-Dichlorobenzene	25 .	0.54
1,2-Dichloroethane	11	0.19 U
Ethylbenzene	110	12
Tetrachloroethene	420	1.6
Trichloroethene (TCE)	21	0.29
Vinyl Chloride	16	0.19 U
1,1,1-Trichloroethane (TCA)	520000	0.19 U
1,1,2,2-Tetrachloroethane	4.8	0.19 U
1,1,2-Trichloroethane	18	0.19 U
1,1,2-Trichlorotrifluoroethane	3100000	0.54
1,1-Dichlorgethane (1,1-DCA)	180	0.19 U
1,1-Dichloroethene (1,1-DCE)	21000	0.19 U
1,2,3-Trichloropropane	31	0.93 UJ
1,2,4-Trimethylbenzene	730	15
1,2-Dibromoethane	, 0,47	0.19 U
1,2-Dichlorobenzene	21000	0.19 U
1,2-Dichloropropane	2B	0.19 U
1,3,5-Trimethylbenzene	NS	6.2
1,3-Dichlorobenzene	NS	0.19:U
1,4-Dioxane	56	0.93 U
2-Butanone (MEK)	520000	9.3 U
2-Hexanone	3100	0.93 U
4-Ethyltoluene	NS	4.8
4-Methyl-2-pentanone	310000	0.93 U
Acetone	3200000	12
Bromoform	260	0.93 U
Bromomethane	520	0.37 U
Chlorobenzene	S200	0.19 U
Chloroethane	1000000	0.37 U
Chloromethane	9400	0.37 U
cis-1.2-Dichloroethene	NS	0.19 U
cis-1,3-Dichloropropene	NS	0.93 U
fcp-r'2-nemorobrobeue	No.	0.53.0

exceedances in the crawl space or living space indoor air. 1,2-dichloroethane, and naphthalene were detected above the initial screening levels in the living space but were below a health-based risk management level in the indoor air. Neither 1,2-dichloroethane, 1,4-dichlorobenzene, and naphthalene were detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to the levels in the indoor air. These constituents are frequently found in cleaning products and mothballs.

Compound	Soil Gas Sampling Results	Soil Gas Sampling Results	Soli Gas Vapor Intrusion Screening Level	Indoor Air (First Floor) Results	Indoor Air (Crawl Space) Results	Indoor Air (First Floor) Results	Air Vapor Intrusion Screening Level
1.3-Butadiene	35	15	8.0				0.81
1,2-Dichloroethane				1.2		1.6	1.1
1.4-Dichlorobenzene				14	3.9	310	2.5
Naphthalene					6.5		.83

#### Notes:

- All results and screening levels are in ug/m3 or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at http://www.epa.gov/oswer/vaporintrusion/basic.html.

Because the data show that the chemicals detected in indoor air are not originating from the subsurface vapors, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna.gepa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela.gepa.gov.

Donna K. Seadler

Remedial Project Manager

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 4** ATLANTA FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960

### REDACTED

December 16, 2015

Exemption 7 (A) Interference with Enforcement Proceedings

(B) Right to Fair Trial

(C) Unwanted Invasion of Personal Privacy

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) crawl space air, one (1) indoor air, one (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of four (4) samples in June 2015. Due to potential concerns about data quality, EPA attempted a second soil gas sample in July 2015 for comparison. Unusually wet conditions prevented a second soil gas sample from being successfully collected at that time. However, comparisons of the June and July 2015 soil gas results on those homes where it was successful indicate that the June 2015 data is satisfactory. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the results from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Four constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,2-dichloroethane, 1,4-dichlorobenzene, and naphthalene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas but there were no

## Exemption 6 Personal Privacy

Sample Number	Regional	239-0615-0100	239-0615-0099	239-0615-0098
Location	Screening	Unit 015	Unit 015	Unit 015
Sub Location	Level	AMB	CS	LR
Matrix	Alr	Air	Air	Air
Sample Date		6/10/2015	6/10/2015	6/10/2015
Analysis		VOC	VOC	VOC
Analyte	µg/m <sup>1</sup>	μg/m²	µg/m³	μg/m³
n-Heptane	NS	0.82 U	3 9	16
n-Hexane	7300	0 82 U	93	25
2-Propanol (Isopropyl Alcohol)	73000	8.2 U	13 U	75
m,p Xylenes	1000	13	11	34
Dichloromethane (Methylene Chloride)	1000	0.82 ti	130	0.83 U
Methyl tert-Butyl Ether	110	0 16 U	0 26 U	0.17 U
Naphthalene	0.83	0.82 t/	130	0.93
a-Xylene	1000	D 82 U	43	12
Propene	31000	0 82 U	130	0.83 U
Styrene	10000	0 82 U	1.3 U	12
Tetrahydrofuran (THF)	21000	0 82 U	1.3 U	0.83 U
To'uene	52000	39	15	40
trans-1,2-Dichloroethene	NS	D.16 U	0 26 U	0.17 U
trans-1,3-Dichtoropropene	N5	0.82 U	1.3 U	0.83 U
Trichlorofluoromethane (CFC 11)	7300	16	33	3.8
Vinyl Acetate	2100	8 2 U	13 U	8.6
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	N5	540	910	1200
Methane	NS	2 4	2.8	2.7
Helium	l NS	NA NA	NA	NA NA

VOC - volatile organic compounds

 $<sup>\</sup>mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent U - not detected above specified reporting limit, J - estimated NS - not specified, NA-not analyzed

Sample Number Location	flegional Screening	239-0615-0100 Unit D15	239-0615-0099 Unit 015	299-0615-0098 Unit 015
Sub Location	Level	AMB:	g .	LA
Metrix	Alc	Air	Air	A.
Sample Date		6/10/2015	6/10/2015	* 16/10/2015 de
Analysis		VOC	LI VOC	VOE THE
Analyte	ug/m³	ug/m	Part Indian	µg/mt.
Benzene	3.1	0.55	1.0	2.2
1,3-Butadiene	0.8	0.33 U	0.51 U	1.0
Carbon Tetrachloride	4.1	0.64	0.6	0.83
Chlaroform	102	0.17	0.76	10
Olbromochloromethane	1.0	0.16 U	0.26 U	0.22
1,4-Dichlorobenzene	2.5	0.16 U	0.26 U	0 17 U
1,2-Dichloroethane	1.1	0.16 U	0 69	1.2
Ethylbenzene	12	0 82 U	2.9	91
Tetrachloroethene	42	0.16 U	0 26 U	0.17 U
Trichloroethene (TCE)	2.1	0.16 U	0.26 U	0 17 U
Vinyl Chloride	1.6	0160	0.26 U	0 17 U
1,1,1-Trichloroethane (TCA)	<b>520</b> 00	0160	0.26 U	Q.17 U
1,1,2,2-Tetrachloroethane	0.48	0.16 U	0.26 U	0170
1,1,2-Trichloroethane	1.8	0.16 U	0.26 U	0 17 U
1,1,2-Trichlorotrifluoroethane	310000	0.67	0 69	0.60
1,1-Dichloroethane (1,1-DCA)	18	0.16 U	0.26 U	0.17 U
1,1-Dichloroethene (1,1-DCE)	2100	0.16 U	0.26 U	0.17 U
1,2,3-Trichloropropane	3.1	0.82 ປປ	1.3 U/	0 83 UI
1,2,4-Trimethy/benzene	73	0 82 U	4.6	14
1,2-Dibromoethane	0.047	0.16 ป	D.26 U	0.17 U
1,2-Dichlorabenzene	2100	0.16 U	0.26 U	0.17 U
1,2-Dichloropropane	2.8	0.16 U	0.26 U	0170
1,3,5-Trimethylbenzene	N5	0820	1.3 U	3.6
1,3-Dichlorobenzene	N5	0.16 U	0.26 U	0.170
1,4-Dioxane	5.6	0 82 U	130	0.83 U
2-Butanone (MEK)	52000	8,2 U	13 U	13
2-Hexanone	310	0 82 U	1.3 U	0.83 U
4-Ethyltoluene	NS	0 82 U	130	3.5
4-Methyl-2-pentanone	31000	Q.82 U	1.3 U	0 83
Acetone	320000	13	34	140
Bromoform	25	0.82 ∪	1.3 U	0.83 U
Bromomethane	52	0 33 U	0.51 U	0,33 U
Chlorobenzene	520	0 16 U	0.26 U	0.17 U
Chloroethane	100000	0 33 U	0.51 U	0.33 U
Chloromethane	940	0.35	0.51 U	0 51
cis-1,2-Dichloroethene	NS	0 16 U	0.26 U	0.17 U
cis-1,3-Dichloropropene	NS	0.62 U	1.3 U	0.83 U
Cyclohexane	63000	1.6 ป	26U	2.3
Dichlorodifluoromethane (CFC 12)	1000	2.8	3.1	2.4
Ethyl Acetate	730	2.5	4.9	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.B2 U	130	0.83 U



November 2015				
Sample Number Location Sub Location Matrix Sample Date Analysis	Regional Screening Level Soll Gas	239-0615-0108 Unit 015 SG Soil Gas 6/10/2015 VOC		
Analyte	μg/m³	μ <b>g/</b> m³		
Cyclohexane	630000	8.7		
Dichlorodifluoromethane (CFC 12)	10000	2.2		
Ethyl Acetate	7300	1.7 U		
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.87 ป		
n-Heptane	NS	17		
n-Hexane	73000	57		
2-Propanol (Isopropyl Alcohol)	730000	8.7 U		
m,p-Xylenes	10000	29		
Dichloromethane (Methylene Chloride)	10000	0.98		
Methyl tert-Butyl Ether	1100	0.17 U		
Naphthalene	8.3	1.6		
o-Xylene	10000	10		
Propene	310000	670		
Styrene	100000	0.87 ป		
Tetrahydrofuran (THF)	210000	0.87 U		
Toluene	520000	40		
trans-1,2-Dichloroethene	NS	0.17 U		
trans-1,3-Dichloropropene	NS	0.87 U		
Trichlorofluoromethane (CFC 11)	73000	1.2		
Vinyl Acetate	21000	8.7 U		
Analysis	Fixed Gas	Fixed Gas		
Carbon Dioxide	NS	2000		
Methane	NS	8.9		
Helium	NS	210000		

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed



Sample:Number Location	Regional Screening	239-0615-0108 Unit(015
Sub:Locations 6	Level	- \$ <b>6</b>
Matrix	Soil Gas	Soil Gas
Sample Date		6/40/2015
Analysis		voc.
Analyte	he/m³	μg/m <sup>2</sup>
Benzene —	31	7.2
1,3-Butadiene	8.0	17
Carbon Tetrachloride	41	1800
Chloroform	1020	170
Dibromochloromethane	10	0.17 U
1,4-Dichlorobenzene	25	0.42
1,2-Dichloroethane	11	0.17 U
Ethylbenzene	110	8.4
Tetrachloroethene	420	1.7
Trichloroethene (TCE)	21	0.17 U
Vinyl Chloride	16	0.17 U
1,1,1-Trichloroethane (TCA)	520000	13
1,1,2,2-Tetrachloroethane	4:8	0.17 U
1,1,2-Trichloroethane	18	0.17 U
1,1,2-Trichlorotrifluoroethane	3100000	0.52
1,1-Dichloroethane (1,1-DCA)	180	0.17 U
1,1-Dichloroethene (1,1-DCE)	21000	0.17 U
1,2,3-Trichloropropane	31	עט 0.87
1,2,4-Trimethylbenzene	730	11
1,2-Dibromoethane	0.47	0.17 U
1,2-Dichlorobenzene	21000	0.17 U
1,2-Dichloropropane	28	0.17 U
1,3,5-Trimethylbenzene	NS	4.3
1,3-Dichlorobenzene	NS	0.17 U
1,4-Dioxane	56	0.87 U
2-Butanone (MEK)	520000	8.7 U
2-Hexanone	3100	0.87 U
4-Ethyltoluene	NS.	3.7
4-Methyl-2-pentanone	310000	0.87 U
Acetone	3200000	8.7 U
Bromoform	260	0.87 U
Bromomethane	520	0.35 U
Chlorobenzene	5200	0.17 U
Chloroethane	1000000	0.35 U
Chloromethane	9400	0.35 U
cis-1,2-Dichloroethene	NS	0.17 U
cis-1,3-Dichloropropene	NS	0.87 U

Neither naphthalene nor 1,2-dichlorethane were detected at elevated concentrations in the soil gas or crawl space air indicating that common household products may be contributing to the levels in the living space indoor air.. These constituents are frequently found in cleaning products and mothballs. 1,3-butadiene may also be a by-product of cigarette smoke.

Compound	Soli Gas Sampling Results	Soil Gas Sampling Results	Soli Gas Vapor Intrusion Screening	Indoor Air (First Floor) Results	Indoor Air (First Floor) Results	Air Vapor Intrusion Screening Level
	Dec. 2014	June 2015	Level	Nov 2014	June 2015	
1,3-Butadiene	34	17	8.0	r 	1.0	0.81
1,2- Dichloroethane				1.1	1.2	1.1
Carbon Tetrachioride		1800	41			
Napthalene					.93	.83

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at <a href="http://www.epa.gov/oswer/vaporintrusion/basic.html">http://www.epa.gov/oswer/vaporintrusion/basic.html</a>.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or seadler.donna@epa.gov. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela@epa.gov.

Donna K. Seadler

Remedial Project Manager

Enclosures



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960
December 16, 2015

### REDACTED

Exemption 7 \_\_\_\_\_(A) Interference with Enforcement Proceedings

(B) Right to Fair Trial

(C) Unwanted Invasion of Personal Privacy

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) crawl space air, one (1) indoor air, one (1) ambient (outdoor) air, and one (1) soil gas sample were collected at your property for a total of four (4) samples in June 2015. EPA attempted a second soil gas sample in July 2015 for comparison. Due to unusually heavy rains, no soil gas sample was successfully collected. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Four (4) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,2-dichloroethane, carbon tetrachloride, and naphthalene). 1,3-butadiene was detected at levels above initial screening levels in the soil gas and living space indoor air but were below a health-based risk management level. Carbon tetrachloride was detected at elevated levels in the soil gas but not in the crawl space or living space indoor air, and is not of concern. 1,2-dichloroethane, and naphthalene were detected above the initial screening levels in the living space but were below a health-based risk management level in the indoor air.

#### TABLE 2

#### June and July 2015 Air Sampling Results Lee's Lane Landfill Site Investigation

Exemplifol of Personal Privacy

November 2015

## REDACTED

6		
Sample Number	239-0615-0106	Regional
Location	Unit 034	Screening
Sub Location	SG	Level
Matrix	Soil Gas	Soil Gas
Sample Date	6/10/2015	
Analysis	VOC	l
Analyte	μg/m³	μg/m³
Cyclohexane	1.7 U	630000
Dichlorodifluoromethane (CFC 12)	4.1	10000
Ethyl Acetate	2.9	7300
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	3.1	NS
n-Heptane	0.85 U	NS
n-Hexane	0.85 U	73000
2-Propanol (Isopropyl Alcohol)	8.5 U	730000
m,p-Xylenes	0.85 บ	10000
Dichloromethane (Methylene Chloride)	0.85 U	10000
Methyl tert-Butyl Ether	0.17 U	1100
Naphthalene	1.0	8.3
o-Xylene	0.85 U	10000
Propene	4.4	310000
Styrene	0.85 U	100000
Tetrahydrofuran (THF)	0.85 U	210000
Toluene	2.1	520000
trans-1,2-Dichloroethene	0.17 U	NS
trans-1,3-Dichloropropene	0.85 U	NS
Trichlorofluoromethane (CFC 11)	1.9	73000
Vinyl Acetate	8.5 U	21000
Analysis	Fixed Gas	Fixed Gas
Carbon Dioxide	2600	NS
Methane	480	NS
Helium	540	NS

VOC - volatile organic compounds

µg/m<sup>3</sup> - micrograms per cubic meter, ppmv - parts per million by volume, % percent

U - not detected above specified reporting limit, J - estimated

NS - not specified, NA-not analyzed

## REDACTED

**Exemption 6** Personal Privacy

Sample Number	239-0615-0106	Regional
Location	Uñit 034	Screening
Sub-Location	SG	Level
Matrix	Soll Gas	Soil Gas
Sample Date	8/10/2015	30,1, 423
Analysis	VOC	
Analyte	με/m³	μg/m³
Benzene	0.58	31
1,3-Butadiene	0.34 U	8.0
Carbon Tetrachloride	2.6	41
Chloroform	0.17 U	1020
Dibromochloromethane	0.17 U	10
1,4-Dichlorobenzene	0.17 U	25
1,2-Dichloroethane	0.17 U	11
Ethylbenzene	0.85 U	110
Tetrachloroethene	4.5	420
Trichloraethene (TCE)	0.17 U	21
Vinyl Chloride	0.17 U	16
1,1,1-Trichloroethane (TCA)	17	520000
1,1,2,2-Tetrachloroethane	0.17 U	4.8
1,1,2-Trichloroethane	0.17 U	18
1,1,2-Trichlorotrifluoroethane	0.62	3100000
1,1-Dichloroethane (1,1-DCA)	0.17 U	180
1,1-Dichloroethene (1,1-DCE)	0.17 U	21000
1,2,3-Trichloropropane	0.85 UJ	31
1,2,4-Trimethylbenzene	0.85 U	730
1,2-Dibromoethane	0.17 U	0.47
1,2-Dichlorobenzene	0.17 U	21000
1,2-Dichloropropane	0.17 U	28
1,3,5-Trimethylbenzene	0.85 U	N5
1,3-Dichlorobenzene	0.17 U	NS
1,4-Dioxane	0.85 U	56
2-Butanone (MEK)	8.5 U	520000
2-Hexanone	0.85 U	3100
4-Ethyltoluene	0.85 U	NS
4-Methyl-2-pentanone	0.85 U	310000
Acetone	8.5 U	3200000
Bromoform	0.85 U	250
Bromomethane	0.34 U	520
Chlorobenzene	0.17 U	5200
Chloroethane	0.34 U	1000000
Chloromethane	0.34 U	9400
cis-1,2-Dichloroethene	0.17 U	NS
cis-1,3-Dichloropropene	0.85 U	N5

Compound	Soli Gas Sampling Results	Soil Gas Vapor Intrusion Screening Level
	Dec. 2014	
1,3-Butadiene	56	8.0

#### Notes:

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Donna K. Seadler

Remedial Project Manager

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REDACTED

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960
December 16, 2015

Inforcement Proceedings

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Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

#### Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted soil gas sampling on your property. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One (1) soil gas sample was at your property in June 2015. EPA attempted a second soil gas sample in July 2015 for comparison. Due to unusually heavy rains, no soil gas sample was successfully collected. However, comparisons of the June and July 2015 soil gas results on those homes where it was successful indicate that the June 2015 data is satisfactory. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the exceedances from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. No constituents were found over screening levels in the June 2015 sampling event.

# REDACTED

#### Exemption 6 Personal Privacy

Sample Number	Regional	2394061540082	239-0615-0083	239-0615-0081
Sample Nomber Location	Screening	Unit 014	Unit 014	Unit 014
	Level	AMA	CS CS	LR
Sub Location Matrix	Air	Air	Air	Air
* 1	Air	6/10/2015	6/10/2015	6/10/2015
Sample Date	1	VOC	VOC	VOC
Analysis		h8/w <sub>1</sub>	μg/m³	μ <b>μ/m</b> 3
Analyta	μg/m³			
n Heptane	NS	0.70 U	0.81 U	13
n-Hexane	7300	0.70 U	0.90	17
2-Propanol (Isopropyl Alcohol)	73000	7.0 U	8.1 U	31
m,p-Xylenes	1000	3 2	14	4.3
Dichloromethane (Methylene Chloride)	1000	0.70 U	1.2	2 1
Methyl tert-Butyl Ether	110	0.14 U	0.16 U	014U
Naphthalene	0.83	0.70 U	0.81.0	1.5
o-Xytene	1000	14	0.84	14
Propene	31000	17	3 3	13
Styrene	10000	0.70 U	0810	1.2
Tetrahydrofuran (THF)	21000	0.70 U	2.2	5.4
Toluene	52000	5.3	4.0	11
trans 1,2 Dichioroethene	NS	0.14 U	0.16 U	0.14 U
trans-1,3-Dichloropropene	NS	0.70 U	081 U	0.71 U
Trichlorofluoromethane (CFC 11)	73D0	1.2	19	2.4
Vinyl Acetate	2100	70U	8.1 U	26
Analysis	Fixed Gos	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	NS	490	600	700
Methane	NS	2.5	39	5.1
Hellum	NS	NA.	NA.	NA

VOC - volatile organic compounds

µg/m<sup>1</sup> - micrograms per cubic meter, ppmv - parts per million by volume, % percent U - not detected above specified reporting limit, J - estimated NS - not specified, NA-not analyzed

TABLE 2

## Exemplian o reisonal Privacy

Semple Number	Regional	239-0615-0082	239-0615-0083	239-0615-0081
Location	Screening	Unit 014	Unit 014	Unit 014
Sub Location	Level	AM8	CS.	LR.
Marth 7	Air	Alr.	Air	NC.
Sample Date	•	6/10/2015	6/10/2015	6/10/2015
Analysis			VOC	/ voc
Analyte	ħē\w <sub>3</sub>	THE/W	hit/m	HZ/m
Benzene	3.1	0.48	0.91	26
1,3-Butadiene	0.80	0.28 U	0.40	1.7
Carbon Tetrach'oride	41	0.45	0.73	0.88
Chloroform	102	0.19	0.58	0.69
Dibromochloromethane	1.0	0.14 U	0160	0 14 U
1,4-Dichlorobenzene	2.5	0.14 U	0160	0.26
1,2-Dichlorgethane	1.1	0.14 U	0.50	0.73
Ethylbenzene	11	0.73	0 81 U	1.5
Tetrachloroethene	42	0.14 U	0.16 U	0.14 U
Trichloroethene (TCE)	2.1	0.14 U	0160	0 14 U
Vinyi Chioride	1.6	0.14 U	0160	0141
1.1.1-Trichloroethane (TCA)	52000	0 14 U	0 16 U	0.14 U
1.1.2.2-Tetrachloroethane	0.48	0140	0 15 U	0.14 U
1,1,2-Trichloroethane	1.8	0140	0160	0 14 U
1.1.2-Trichiorotrifluoroethane	310000	0.56	0.58	0.58
1,1-Dichloroethane (1,1-DCA)	18	0 14 U	0.16 U	0.14 U
1,1-Dichlaroethene (1,1-DCE)	2100	0 14 U	0.16 U	0.14 U
1,2,3-Trichloropropane	3.1	0.70 UJ	0 81 UJ	0 71 UJ
1,2,4-Trimethy/benzene	73	2.3	0.81 U	1.8
1,2-Dibromoethane	0.047	0.14 U	0.16 U	0.14 U
1,2-Dichlorobenzene	2100	0 14 U	0.16 U	0.14 U
1,2-Dichloropropane	2.8	0140	0.16 U	0.14 U
1,3,5-Trimethylbenzene	NS	070 U	0.81 U	0.71 U
1,3-Dichlorobenzene	NS	0140	0.16 U	0.14 U
1,4-Dioxane	5.6	0.70 U	0.81 U	0.71 U
2-Butanone (MEK)	52000	7.0 U	8 1 U	10
2-Hexanone	310	0700	0.B1 U	0.84
4-Ethyltoluene	NS	0.70 U	0.81 U	0.71 U
4-Methyl-2-pentanone	31000	0.70 U	0.81 U	0.73
Acetone	320000	9.5	47	150
Bromotorm	26	0.70 U	0.81 U	0.71 U
Bromomethane	52	0.28 U	0.32 U	0,28 U
Chlorobenzene	520	0.14 U	0.16 U	0.14 U
Chloroethane	100000	0.28 U	0.32 U	0.28 U
Chloromethane	940	0.43	0.42	1.2
cls-1,2-Dichloroethene	NS	0.14 U	9.16 U	0.14 U
cis-1,3-Dichloropropene	NS	0.70 U	0.61 U	0.71 U
Cyclohexane	63000	1.40	1.6 U	1.4 U
Dichlorodifluoromethane (CFC 12)	1000	2.0	20	2.0
Ethyl Acetate	730	12	4.6	24
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS.	0.70 U	G,81 U	0.71 U

#### Exemption 6 Personal Privacy

## REDACTED

Sample Number	Regional	239-0615-0104	239-0715-0065	
Location	Screening	Unit 014	Unit 014	
Sub Location	Level	5G	5G	
Matrix	Soll Gas	Soll Gas	Soil Gas	
Sample Date	1.	6/10/2015	7/24/2015	
Analysis	1	VOC	VOC	
Analyte	μg/m <sup>1</sup>	μg/m³	μ <b>π</b> /m³	
Cyclohexane	630000	1.8 U	1.6 U	
Dichlorodif:upromethane (CFC 12)	10000	3.2	33	
Ethyl Acetate	7300	1.8 U	160	
1,2-Dichloro-1,1,2,2-tetralluoroethane (CFC 114)	NS	091	11	
n-Heptane	NS NS	1.1	1.2	
ri Hexane	73000	1.9	40	
2-Propanol (Isopropyl Alcohol)	730000	890	810	
m,p-Xylenes	10000	70	11	
Dichloromethane (Methylene Chloride)	10000	0.89 U	0.81 U	
Methyl tert-Butyl Ether	1100	0.18 U	0.16 U	
Naphthalene	8.3	15	2.2	
o Xylene	10000	2.7	0.81 U	
Propene	310000	70	15	
Styrene	100000	0 89 U	0.81 U	
Tetrahydrofuran (THF)	210000	0.89 U	0.81 U	
Taluene	520000	13	2.6	
trans-1,2-Dichloroethene	NS.	0 18 0	0.16 U	
trans-1,3-Dichloropropene	NS	0890	0.81 U	
Trich'orafluoromethane (CFC 11)	73000	29	28	
Vinyl Acetate	21000	11	81U	
Arraiysis	Fixed Gas	Fixed Gas	Fixed Gas	
Carbon Clouide	N5	59000	7 99	
Methane	Í NS	8.5 U	0 15 U	
Helium	NS	87000	100	

VOC - valatile organic compounds

 ${\it pg/m^3}$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, 1 - estimated

N5 - not specified, NA-not analyzed

Sample Number	Regional	239-0615-0104	239-0715-0085
Location	Screening	Unit 014	Unit 014
Sub Location	Lavel	SG	SG
Matrix	Soil Gas	Soil Gas	Soll Gas
Sample Date	. As	6/10/2015	7/24/2015
Amalysis	an a distance leaves of	VOC.	VOC
Analyte	eur/m³	μ <b>ε</b> /m	μ <b>g/m</b>
Benzene	31	1.9	052 U
1,3-Butadlene	0.9	0.52	0 38
Carbon Tetrachloride	41	0.180	0.16 U
Chloroform	1020	1.1	1.2
Dibromochloromethane	10	0.18 U	0.16 U
1,4-Dichtorobenzene	25	0.18 U	0.16 U
1,2-Dichloroethane	11	0.18 U	0.16 U
Ethylbenzene	110	2.3	0.81 U
Tetrachloroethene	420	1.5	1.8
Trichloraethene (TCE)	21	0.37	0.16 U
Vinyl Chloride	16	0.18 U	0 16 U
1,1,1-Trichloroethane (TCA)	520000	3.7	5.5
1,1,2,2-Tetrachloroethane	4.8	0 18 U	0.16 U
1,1,2-Trichloroethane	18	0.18 U	0.16 U
1,1,2-Trichlorotrifluorgethane	3100000	0.52	0.59
1,1-D-chloroethane (1,1-DCA)	180	0 18 U	0.16 U
1,1-Dichloroethene (1,1-DCE)	21000	0.18 U	0.16 U
1,2,3-Trichloropropane	31	0.89 UI	0.81 UJ
1,2,4-Trimethylbenzene	730	23	081U
1,2-Dibrompethane	0.47	0.18 U	0.16 U
1,2-Dichlorobenzene	21000	Q.18 U	0 16 U
1,2-Dichloropropane	28	0 18 U	0 16 U
1,3,5-Trimethylbenzene	N5	0.91	081 U
1,3-Dichlorobenzone	NS	0 18 U	0 16 U
1,4-Dioxane	56	0 69 U	0.81 U
2-Butanone (MEK)	520000	8.9 U	8.1 U
2-Hexanone	3100	1.0	12
4-Ethyltoluene	NS	0.89 U	0810
4-Methyl-2-pentanone	310000	0.89 U	0.81 U
Acetone	3200000	23	19
Bramaform	260	0.89 U	0.81 U
Bromomethane	520	Q 36 U	0 16 U
Chlorobenzene	5200	0 18 U	D 16 U
Chloroethane	1000000	0.36 U	0.16 U
Chloromethane	9400	0 36 U	0 32 U
cls-1,2-Dichloroethene	NS	0180	0.15 U
cis-1,3-Qichioropropene	N5	0.89 U	0.81 U

Compound	indoor Air (First Floor) Results	indoor Air (First Floor) Results	Air Vapor Intrusion Screening Level	
	Nov 2014	June 2015		
1.3-Butadiene	.98	1.7	0.81	

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see http://www.epa.gov/superfund/.

For more information about vapor intrusion, please see EPA's web page at <a href="http://www.epa.gov/oswer/vaporintrusion/basic.html">http://www.epa.gov/oswer/vaporintrusion/basic.html</a>.

Because all results have remained below health-based risk management screening levels, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or <a href="mailto:seadler.donna@epa.gov">seadler.donna@epa.gov</a>. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or <a href="mailto:miller.angelai@epa.gov">miller.angelai@epa.gov</a>.

Donna K. Seadler

Remedial Project Manager

K Scoll

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 4** ATLANTA FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960 December 16, 2015

### REDACTED

Exemption 7 \_\_\_\_\_(5) Interference with Enforcement Proceeds.

\_\_\_(B) Figure to Fair Trial

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One crawl space air, one indoor air, one ambient (outdoor) air, and one soil gas sample were collected at your property for a total of four samples in June 2015. Due to potential concerns about data quality, a second soil gas sample was collected in July 2015 for comparison. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the results from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. One (1) constituent, 1,3-butadiene, was detected in your results above EPA sitespecific screening levels in the living space indoor air but were below a health-based risk management level. 1,3-butadiene was not detected at elevated levels in the soil gas or crawl space, indicating that common household products may be contributing to the levels in the living space indoor air. This constituent can be found in cigarette smoke.

### Exemption 6 Personal Privacy

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Sample Number	Regional	239-0615-0088	23940615-0089	239-0615-0087
Location	Screening	Unit 030	Unit 030	Unit 030
Sub Location	Level	AMB	CS .	LR
Matrix	Air	Air	Air	Air
Sample Date		6/10/2015	6/10/2015	6/10/2015
Analysis		voc	. voc	VOC
Analyte	μg/m³	pg/m³	μg/m³	μg/m³
n-Heptane	NS	0 91 U	0.67 ป	5.4
n-Hexane	7300	0.91 U	0.67 U	1.4
2-Propanol (isopropyi Alcohol)	73000	9.1 U	6.7 ป	1300
m,p-Xylenes	1000	0 97	0.67 U	2.0
Dichloromethane (Methylene Chloride)	1000	0.91 U	0.67 U	0830
Methyl tert-Butyl Ether	110	0.18 U	0.13 U	0.17 U
Naphthalene	0.83	0.91 U	0.67 U	0.83 U
o-Xylene	1000	0.91 U	0.67 U	0.83 U
Propene	31000	0.91 U	ט 0.67	18
Styrene	10000	0.91 U	<b>0</b> .67 U	1.2
Tetrahydrofuran (THF)	21000	0.91 U	0.67 U	0.83 U
Toluene	52000	4.3	1.0	85
trans-1,2-Dichloroethene	NS	0.18 U	0.13 U	0.17 U
trans-1,3-Dichloropropene	NS	0.91 U	0.67 U	0.83 U
Trichlorofluoromethane (CFC 11)	7300	1.2	1.3	1.3
Mond Aretate	2100	9.1 U	6.7 U	8.3 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas	Fixed Gas
Carbon D-oxide	NS	400	460	740
Methane	NS	1.7	19	26
Helium	N5	NA.	NA	NA

VOC - volatile organic compounds

µg/m³ - micrograms per cubic meter, ppmv - parts per million by volume, % percent U - not detected above specified reporting limit, J - estimated NS - not specified, NA-not analyzed

### Exemption 6 Personal Privacy

Sample Number	Regional	239-0515-0088	239-0615-0089	23910615;0087
Location	Screening	Unit 030	Unit 090-	Unit 030*
Sub Location	Level	AMB	. 6	44
Matrix	Alr	Air	Ar	AI
Sample Date	,	6/10/2015	6/10/2015	<sub>e</sub> . 6/10/2015
Analysis		VOC	± Voc →	VOC
Analyte	μg/m³	hg/w,	3 WE/m	Ne/man
Benzene	3.1	0.52	0 3 2	0.77
1,3-Butadiene	0.8	0.36 U	0.27 U	0.33 U
Carbon Tetrachloride	4.1	0.43	0.50	0.38
Chloroform	102	0.18 U	0 27	0.66
Dibromochloromethane	1.0	0.18 U	0.13 U	0.17 U
1,4-Dichlorobenzene	2.5	0.23	65	48
1,2-Dichloroethane	1.1	0.1B U	038	5 <i>.</i> 5
Ethylbenzene	11	0.91 ປ	0.57 U	0.83 U
Tetrachloroethene	42	0.1B U	0.13 U	0.17 U
Trichloroethene (TCE)	2.1	0.18 U	0.45	0.17
Vinyl Chloride	1.6	0.18 U	0.13 U	0.17 U
1,1,1-Trichloroethane (TCA)	52000	0.1B U	0.13 U	0.17 U
1,1,2,2-Tetrachloroethane	0.48	0.18 U	0.13 U	0.17 U
1,1,2-Trkhloroethane	1.6	0.18 U	0.13 U	0.17 ⊔
1,1,2-Trichlorotrifluoroethane	310000	0.55	0.56	0.55
1,1-Dichloroethane (1,1-DCA)	18	0.18 U	0.13 U	0.17 U
1,1-Dichloroethene (1,1-DCE)	2100	0.18 U	0.13 U	0.17 U
1,2,3-Trichloropropane	3.1	0 91 UJ	0.67 UJ	0.83 U)
1,2,4-Trimethylbenzene	73	0.91 U	0.67 U	0.83 U
1,2-Dibromoethane	0.047	0.18 U	0.13 U	0.17 じ
1,2-Dichlorobenzene	2100	0.1B U	0.13 U	0.17 U
1,2-Dichloropropane	2.8	0.18 U	0.13 U	0.17 U
1,3,5-Trimethylbenzene	NS	0.91 U	067 U	0.83 U
1,3-Dichlorobenzene	NS	0.16 U	0 13 U	0.17 U
1,4-Dioxane	5.6	0.91 U	0 67 U	0.83 U
Z-Butanone (MEK)	52000	9.1 U	5.7 U	830
2-Hexanone	310	0.91 U	0 67 U	1.0
4-Ethyltoluene	N5	0.91 U	0 67 U	0.83 U
4-Methyl-2-pentanone	31000	0.91 U	0 67 U	0.83 U
Acetone	320000	9.2	6.7 U	85
Brompform	26	0.91 U	0 67 U	0.83 U
Bromomethane	52	0.36 U	0 27 U	0.33 U
Chlorobenzene	520	0.1B U	0 13 U	0 17
Chloroethane	100000	0.36 U	0 27 U	0.33 U
Chloromethane	940	0.43	0 <b>2</b> 7 U	0 60
cls-1,2-Dichloroethene	NS	0.18 U	0.15	0.17 U
cis-1,3-Dichloropropene	N5	0.91 U	0 67 U	0.83 U
Cyclohexane	63000	1.8 U	1.3 U	1.7 U
Dichlorodifluoromethane (CFC 12)	1000	2.0	2.1	2.1
Ethyl Acetate	730	4.7	1.3 U	12
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.91 U	0 67 U	0.83 U

#### Exemption 6 Personal Privacy



Sample Number	Regional	239-0615-0109	239-0715-0084
Location	Screening	Unit 030	Unit 030
Sub Location	Level	SG	SG
Watrix	Soil Gas	Soil Gas	Soil Gas
Sample Date:		6/10/2015	7/24/2015
Analysis		voc	VOC
Analyte	μ <b>ε/m³</b>	hB/m <sub>)</sub>	μg/m³
Cyclohexane	630000	8.4	5.6
Dichlorodifluoromethane (CFC 12)	10000	1.5	2.3
Ethyl Acetate	7300	1.6 U	1.3 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NS	0.82 U	0 66 U
n-Heptane	NS	28	10
n-Hexane	73000	45	65
2-Propanol (isopropyl Alcohol)	730000	8.2 U	6.6 U
m,p-Xylenes	10000	48	4.3
Dichloromethane (Methylene Chloride)	10000	1.1	0.66 U
Methyl tert-Butyl Ether	1100	0.16 U	0.13 U
Naphthalene	8.3	1.9	3.6
o-Xylene	10000	17	2.2
Propene	310000	530	490
Styrene	100000	0.82 U	1.1
Tetrahydrofuran (THF)	210000	0.82 U	0.96
Toluene	520000	60	17
trans-1,2-Dichloroethene	NS	0.16 U	0.1 <b>3</b> U
trans-1,3-Dichloropropene	NS	0.82 U	0.66 U
Trichlorofluoromethane (CFC 11)	73000	1.0	1.1
Vinyl Acetate	21000	8.2 U	6.6 U
Analysis	Fixed Gas	Fixed Gas	Fixed Gas
Carbon Dioxide	N5	96	3.46
Methane	NS	6.4	0 13 U
Helium	N5	200000	20000

VOC - volatile organic compounds

 $\mu g/m^3$  - micrograms per cubic meter, ppmv - parts per million by volume, % - percent

U - not detected above specified reporting limit, J - estimated

NS not specified, NA-not analyzed

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### Exemption 6 Personal Privacy

Sample:Number Location Subliciation Matrix; Sample:Date	Regional Screening Level Solligas	239°0615-0109 Unit 030 = S6 S6H 68s; 6/10/2015	259-0715-0084 Unit 090 SGI Gas 9/24/2015
Analysis		VOC	L OVOC
Analyte	hB/ш <sub>j</sub>	hit/w	HEZON*
Benzene	31	8.2	8.2
1,3-Butadiene	6.0	12	16
Carbon Tetrachloride	41.	0.67	0.31
Chloroform	1020	1.4	6.8
Dibromochloromethane	10	0.16 U	0.13 U
1,4-Dichlorobenzene	25	0.46	0.43
1,2-Dichloroethane	11	0.16 U	0.13 U
Ethylbenzene	110	13	2.2
Tetrachloroethene	420	1.4	0.92
Trichloroethene (TCE)	21	0.25	0.13 U
Vinyl Chloride	16	0.16 U	0.13 U
1,1,1-Trichloroethane (TCA)	520000	0.38	0.16
1,1,2,2-Tetrachloroethane	4:8	0.16 U	0.13 U
1,1,2-Trichloroethane	. 18	0.16 U	0.13 υ
1,1,2-Trichlorotrifluoroethane	3100000	0.41	0.49
1,1-Dichloroethane (1,1-DCA)	180	0.16 U	0.13 U
1,1-Dichloroethene (1,1-DCE)	21000	0.16 U	0.13 U
1,2,3-Trichloropropane	31	0.82 UJ	0.66 UJ
1,2,4-Trimethylbenzene	730	21	2.8
1,2-Dibromoethane	0.47	0.16 U	0.13 U
1,2-Dichlorobenzene	21000	0.16 U	0.13 U
1,2-Dichloropropane	28	0.16 U	0.13 U
1,3,5-Trimethylbenzene	NS	7.5	0.69
1,3-Dichlorobenzene	NS	0.16 U	0.13 U
1,4-Dioxane	56	0.82 U	0.66 U
2-Butanone (MEK)	520000	8.2 U	9.9
2-Hexanone	3100	0.82 U	3.1
4-Ethyltoluene	NS	5.9	1.0
4-Methyl-2-pentanone	310000	0.82 U	1.5
Acetone	3200000	11	36
Bromaform	260	0.82 U	0.66 U
Bromomethane	520	0.33 U	0.13 U
Chlorobenzene	5200	0.16 U	0.13 U
Chloroethane	1000000	0.33 U	0.13 U
Chloromethane	9400	0.33 U	0.26 U
cis-1,2-Oichloroethene	NS	0.16 U	0.13 U
cis-1,3-Dichloropropene	N5	0.82 U	0.66 U

the levels in the indoor air and crawl space. These constituents are frequently found in cleaning products and mothballs. 1,3-butadiene is also known to be a byproduct of cigarette smoke.

Compound	Soil Gas Sampling Results	Soil Gas Sampling Results	Soil Gas Sampling Results	Soil Gas Vapor Intrusion Screening Level	Indoor Air (First Floor) Results	Indoor Air (Crawl Space) Results	Indoor Air (First Floor) Results	Air Vapor Intrusion Screening Level
	Dec. 2014	June 2015	July 2015		Nov 2014	June	2015	
1,3-Butadiene	31	12	16	8.0				0.81
1.2- Dichloroethane							5.5	1.1
1,4- Dichlorobenzene					18	65	48	2.5

#### Notes:

- All results and screening levels are in ug/m³ or micrograms per cubic meter
- Only compounds with a detection above the respective site-specific Vapor intrusion Screening Levels
  are shown on this table.

For more information regarding risk assessment, please see EPA's website at <a href="http://epa.gov/riskassessment/basicinformation.htm#risk">http://epa.gov/riskassessment/basicinformation.htm#risk</a>.

For general information about the Superfund program, which cleans up contaminated sites, please see <a href="http://www.epa.gov/superfund/">http://www.epa.gov/superfund/</a>.

For more information about vapor intrusion, please see EPA's web page at <a href="http://www.epa.gov/oswer/vaporintrusion/basic.html">http://www.epa.gov/oswer/vaporintrusion/basic.html</a>.

Because the data show that the chemicals detected in indoor air are not originating from the subsurface vapors, this sampling event concludes the vapor intrusion sampling investigation at your property. If you have any questions regarding your sampling results, please contact me at 800-435-9233 (toll-free) or 404-562-8870 or <a href="mailto:seadler.donna@epa.gov">seadler.donna@epa.gov</a>. You may also contact the Community Involvement Coordinator, Angela Miller, at 404-562-8561, or miller.angela@epa.gov.

Donna K. Seadler

Remedial Project Manager

K Saall

**Enclosures** 



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 4** ATLANTA FEDERAL CENTER **61 FORSYTH STREET** ATLANTA, GEORGIA 30303-8960 December 16, 2015

### REDACTED

Exemption 7 (7) Ints, faminice with Enforcement Proceedings

(b) Fight to Fair Trial
(C) Unwanted Invasion of Personal Privacy

Exemption 6 Personal Privacy

Subj: Analytical Results for June and July 2015 Sampling at

Dear

During June and July 2015, the U.S. Environmental Protection Agency (EPA) conducted air sampling and soil gas sampling at your home. The purpose of the original sampling, starting in 2014, was to determine whether volatile organic chemicals (VOCs) were present in the air near your home, in the air below your home, in the air inside your home, or in soil gases outside your home which may be related to the Lee's Lane Landfill Site (the Site). The sampling was also conducted to determine whether any unacceptable levels of exposure are occurring and whether any further response may be needed to protect human health. The most recent sampling event was done to compare seasonal changes from the November and December 2014 results.

One crawl space air, one indoor air, one ambient (outdoor) air, and one soil gas sample were collected at your property for a total of four samples in June 2015. Due to potential concerns about data quality, a second soil gas sample was collected in July 2015 for comparison. The crawl space air, indoor air, and ambient air samples were collected over a 24-hour period. The air samples were analyzed for volatile organic compounds (VOCs), including those chemicals found at or related to those at the Site.

The results are provided to you in two formats. There is a summary table below that compares only the constituents that were detected above the respective EPA Vapor Intrusion Screening Level (VISL). This table includes the results from the November and December 2014 sampling results, which you received earlier this year, for comparison. Enclosed with the letter is the laboratory data with every potential contaminant or constituent that EPA analyzed for in your samples, with any exceedance noted in bold red type. The EPA Vapor Intrusion Screening Levels (VISLs) referenced in the tables are based upon typical exposure factors and assume occupants of the building are exposed to air containing the chemical(s) of concern for 24 hours per day over a chronic duration (7 to 30-year period). Please note that any result on the laboratory data sheets with a "U" Qualifier was not detected in your samples.

The results from this investigation have been reviewed by an EPA, Region 4 human health toxicologist. Three (3) constituents were detected in your results above EPA site-specific screening levels (1,3-butadiene, 1,2-dichloroethane, and 1,4-dichlorobenzene). 1,3- butadiene was detected at levels above initial screening levels in the soil gas but not in the crawl space or living space indoor air. 1,2-dichloroethane and 1,4-dichlorobenzene were detected above the initial screening levels in the living space indoor air but were below a health-based risk management level. Neither 1,2-dichlorethane nor 1,4-dichlorobenze were detected at elevated concentrations in the soil gas, indicating that common household products may be contributing to